

HIV/AIDS Evaluations Synthesis Report 2012

Produced

by

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May 2012

EXECUTIVE SUMMARY

S1. This synthesis exercise has been conducted by DFID in order **to provide a synthesis of evidence generated from completed HIV-related evaluations**. It builds on an earlier stocktaking report published in April 2011 for the UNAIDS Monitoring and Evaluation Reference Group (MERG). A total of 548 'evaluations' were reported by 16 agencies to the stocktaking exercise. Of these, 308 were defined as programmatic evaluations for the purpose of this synthesis exercise. From these, 154 documents were identified and reviewed. Most of these documents (86%) were dated 2007 or later. The documents covered a wide range of evaluations and studies. More than half (55%) of all the reports related to 'classic' programme/project evaluations or non-controlled/qualitative studies. Relatively few (12%) related to randomised controlled trials.

S2. 61 documents (40%) related to **prevention** (see Figure 2, p17). Prevention-related evaluations were less likely to be published in peer-reviewed journals than treatment-related evaluations' less likely to be of good quality and more likely to be of poor quality. For example, almost half (48%) of all treatment-related documents but less than a quarter (23%) of prevention-related documents were classified as good (see Figure 9, p39). Conversely, almost one third (30%) of prevention-related documents but only 15% of treatment-related documents were classified as poor (see Figure 9, p39). However, a higher proportion of prevention-related evaluations (56%) included clear recommendations than treatment-related evaluations (17%) (See Figure 15, p49). Examples of evidence related to HIV prevention from the documents reviewed include:

- Methods for promoting HIV testing, based on a randomised experiment in Senegal (Para 71)
- The sensitivity and specificity of point-of-care oral HIV tests (Para 72)
- The value of PrEP for HIV among sero-discordant couples based on a randomised study in Kenya and Uganda (Para 77)
- A summary of evidence related to male circumcision (Para 78)
- The value of cash transfers in HIV prevention, based on a randomised study in Malawi (Para 80)
- Summaries of evidence related to HIV prevention programmes among people who inject drugs (Para 88) and sex workers (Para 97). Concerns are raised about the every limited evidence of what works in HIV prevention among men who have sex with men (Para 95).
- A summary of evidence related to PMTCT (Para 102), including a particular focus on child feeding practices

S3. 48 documents related to **treatment** (see Figure 2, p17). The percentage of reports related to treatment (31%) was higher than the percentage of treatment evaluations reported to the stocktake (17%). Reports of treatment evaluations appear easier to identify than evaluations on other topics. Treatment-related evaluations were more likely to be published in peer-reviewed journals than other types of evaluation. Although less than one third (31%) of all identified reports were published in peer-reviewed journals, this figure was more than

three quarters (79%) for treatment-related evaluations (See Figure 4, p20). Examples of evidence related to HIV treatment from the documents reviewed include:

- The overall benefits of ART not only on health but on broader social/economic issues (Para 116)
- The costs and cost effectiveness of ART including the efficiency gains that occur with 'task shifting' (Para 118)
- The added value of laboratory monitoring for people on ART, based on a randomised experiment from Uganda (Para 122)
- The use of dried blood spots for viral load assays (Para 123)
- Ways of boosting ART adherence (Para 124), including specific issues relating to adolescents (Para 128) and children (Para 129) and the use of SMS messaging (Para 131)
- Issues relating to ART resistance (Para 132)
- Evidence related to the diagnosis and treatment of related infections, including malaria (Para 134) and TB (Para 137)

S4. Only four documents (2.6%) related to **care and support** (see Figure 2, p17). The very low number of reports classified as care and support was because care and support were rarely evaluated on their own. In addition, some topics were classified elsewhere, such as ART adherence as part of treatment and services for orphans and vulnerable children as 'other'. Examples of evidence related to HIV care and support from the documents reviewed include issues specific to the support of women living with HIV (Para 142).

S5. 41 documents (27%) related to **other topics** (see Figure 2, p17). Examples of evidence related to other areas of HIV responses from the documents reviewed include summaries of evidence related to work among orphans and vulnerable children (Para 159) and the value of community responses to HIV based on work conducted by the World Bank, DFID and the UK Consortium on AIDS and International Development (Para 147) .

S6. In general, evaluation reports are poor in explaining the arrangements made to ensure the **independence** of the evaluation (Para 45). There are some notable exceptions, such as the evaluations produced by UNODC. Many reports in peer-reviewed journals contain short statements related to any financial conflicts of interest.

S7. In general, relatively few evaluations were organised around the **OECD DAC evaluation criteria** (Para 52) of relevance, effectiveness, efficiency, impact and sustainability. Nevertheless, most of the reviewed reports were considered to have some focus on assessing effectiveness (82%) and impact (64%). Half (50%) were considered to have a focus on assessing sustainability. Fewer were considered to have a focus on either relevance (39%) or efficiency (35%) (see Figure 14, p48).

S8. Although the proportion of articles considered good was higher in documents included in **peer-reviewed journals** (48%) than those in the grey literature (17%), more than one in six (17%) peer-reviewed articles was considered to be

of poor quality. Articles in peer-reviewed journals were less likely (15%) to have clear recommendations than reports in the grey literature (63%) (See Para 23 and Figure 10, p40).

RECOMMENDATIONS

- S9. There is a need for **more evaluation data in some key areas of responses to HIV**. These include care/support and prevention, overall, and behaviour change, in particular.
- S10. It is essential that when evaluations are carried out they should be **robust and of good quality**. This means that they should have robust counterfactuals.
- S11. In general, **descriptions of evaluation methods should include an assessment of the independence of the evaluation**.
- S12. In order for evaluations to be of maximum use, **reports should contain clear recommendations**.
- S13. There is **a need for evaluations to be followed up systematically**. This should include clear statements of which recommendations of the evaluation are accepted and which are contested. It should also include periodic reviews of progress in acting on the evaluation's recommendations.
- S14. Although the stocktaking exercise and this synthesis report were a useful exercise, it is **important for such exercises to be conducted on a regular basis**. It would be useful if there was a global repository for relevant HIV evaluations including syntheses of these nature in such a repository.
- S15. It would be **helpful for this synthesis report to be presented to the UNAIDS MERG** with the aim of informing any future MERG workplan, in general, particularly if any evaluation working group is established.

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GLOSSARY

ACHAP	African Comprehensive HIV/AIDS Partnership
AIDS	Acquired Immunodeficiency Syndrome
AIM	AIDS/HIV Integrated Model District Program
AL	Artemether-lumefantrine
ART	Antiretroviral Therapy
ARV	Antiretroviral
ASHA	Advancing Surveillance, Policies, Prevention, Care and Support to Fight HIV/AIDS in Nepal
AusAID	Australian Agency for International Development
BMC	BioMed Central
BMJ	British Medical Journal
CBOSP	Community-based Orphan Support Programme
CCSP	Chikankata Child Survival Project
CCT	Conditional Cash Transfer
CDC	Centers for Disease Control and Prevention
CGHD	Center for Global Health and Development
COHED	Center for Community Health and Development
CRS	Catholic Relief Services
CTX	Co-trimoxazole
DAC	Development Assistance Committee
DALY	Disability-Adjusted Life Year
DANIDA	Danish International Development Agency
DBS	Dried Blood Spot
DFID	Department for International Development
DP	Dihydroartemisinin/piperazine
ECDC	European Centre for Disease Prevention and Control
EEA	European Economic Area
EFTA	European Free Trade Area
EGPAF	Elizabeth Glaser Pediatric AIDS Foundation
EID	Early Infant Diagnosis
EU	European Union
FTC	Emtricitabine
GIZ	Gesellschaft für Internationale Zusammenarbeit/Society for International Cooperation
HCV	Hepatitis C
HIV	Human Immunodeficiency Virus
HIVOS	Humanistisch Instituut voor Ontwikkelingssamenwerking/Humanist Institute for Cooperation
IAPAC	International Association of Physicians in AIDS Care
IAS	International AIDS Society
ICASA	International Conference on AIDS and STIs in Africa
IDU	Injecting Drug User
IEC	Information, Education, Communication
IEU	Independent Evaluation Unit
JAIDS	Journal of Acquired Immune Deficiency Syndromes
JICA	Japan International Cooperation Agency
KAP	Knowledge, Attitude, Practices
LTFU	Loss to Follow Up
M&E	Monitoring and Evaluation
MERG	Monitoring and Evaluation Reference Group
MSF(-F)	Médecins sans Frontières (France)
MSM	Men who have Sex with Men
NEJM	New England Journal of Medicine
NGO	Non-Governmental Organisation
NIMH	National Institute of Mental Health
NORAD	Norwegian Agency for Development Cooperation
OECD	Organisation for Economic Cooperation and Development
OGAC	Office of the US Global AIDS Coordinator

OVC	Orphans and Vulnerable Children
PAHO	Pan American Health Organization
PEPFAR	US President's Emergency Plan for AIDS Relief
PHAMSA	Partnership on HIV/AIDS and Mobility in Southern Africa
PIM	Postgraduate Institute for Medicine
PLoS	Public Library of Science
PMTCT	Prevention of Mother to Child Transmission
PPV	Positive Predictive Value
PrEP	Pre-Exposure Prophylaxis
SAARC	South Asian Association for Regional Cooperation
SADC PF	Southern African Development Community Parliamentary Forum
SAWSO	Salvation Army World Service Office
SIDA	Swedish International Development Agency
SMS	Short Message Service
SRH	Sexual and Reproductive Health
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
STRIVE	Support to Replicable Innovative Village Level Community Efforts
TB	Tuberculosis
TDF	Tenofovir
TSA	The Salvation Army
UK	United Kingdom
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNEG	United Nations Evaluation Group
UNICEF	United Nations Children's Fund
UNGASS	United Nations General Assembly Special Session
UNIM	Universities of Nairobi, Illinois and Manitoba
UNODC	United Nations Office on Drugs and Crime
US(A)	United States (of America)
USAID	United States Agency for International Development
VCT	Voluntary Counselling and Testing
WHO	World Health Organization

INTRODUCTION AND BACKGROUND

1. This report has been commissioned by DFID to provide a synthesis of evidence generated from completed HIV-related evaluations. It builds on an earlier stocktaking report published in April 2011 for the UNAIDS Monitoring and Evaluation Reference Group (MERG)¹.

STOCKTAKING EXERCISE

2. The Second Independent Evaluation (SIE) of the Joint United Nations Programme on HIV/AIDS (UNAIDS) recommended the establishment of a working group of relevant HIV evaluation experts to develop a coherent joint global evaluation plan structured around the priority areas of the epidemic.
3. As a first step in the formation of this group, DFID and UNAIDS conducted a 'stock-take' of who was doing what in terms of HIV evaluation. It covered evaluations done in the previous five years and plans for future evaluation activities.
4. Questionnaires were distributed to 18 agencies. Responses were received from 16 agencies². Agencies were asked to provide information on
 - Overall and HIV-specific evaluation strategies
 - Links to evaluation groups and networks
 - Who conducts evaluations for the agency
 - Thematic and geographical areas covered by the agency's evaluations
 - Methods used in the agency's evaluations
 - Quality assurance systems
 - Evaluation questions the agency would like to explore
 - How evaluation priorities are decided
 - How evaluation findings are disseminated and used
 - Spending on HIV-related evaluation
 - Challenges faced in conducting HIV-related evaluations
 - Involvement in capacity building for HIV-related evaluations
5. Agencies were also asked to report on any HIV-related evaluations that were planned, ongoing or had been completed in the last five years which met the definition in Box 1. Agencies reported a total of 548 evaluations to the stocktaking exercise. For each of these evaluations, agencies were asked to report the thematic area in which the evaluation was located; what the key evaluation questions were; the geographical location of the evaluation; the methods used; and the time frame of the evaluation. Agencies were not asked the title of the evaluation or the title(s) of any report(s) of the evaluation. They were not asked to submit any evaluation reports.

¹ Drew, R. And Peersman, G. (2011) *Stocktaking to Map Current Investments in HIV and AIDS Evaluations which Will Inform the Optimization and Expansion of Global-level Partnerships and Collaboration on HIV Evaluation*

² DANIDA, DFID, ECDC, Gates Foundation, GIZ, the Global Fund, JICA, NORAD, OGAC, SIDA, UNAIDS, UNICEF, UNODC, USAID, World Bank and WHO

Box 1: Definition of Evaluation

For the purpose of the stocktake and this synthesis report, evaluation studies were defined as the **rigorous, scientifically-based** collection of information **about program/intervention activities**, characteristics and outcomes that **determine the merit or worth** of the program/intervention. Evaluation studies are considered to include

- i. Operational research, which is defined as the systematic and objective assessment of the availability, accessibility, quality, and/or sustainability of services designed to improve service delivery.
- ii. Evaluation studies using secondary data analysis such as a meta-evaluation or a meta-analysis.

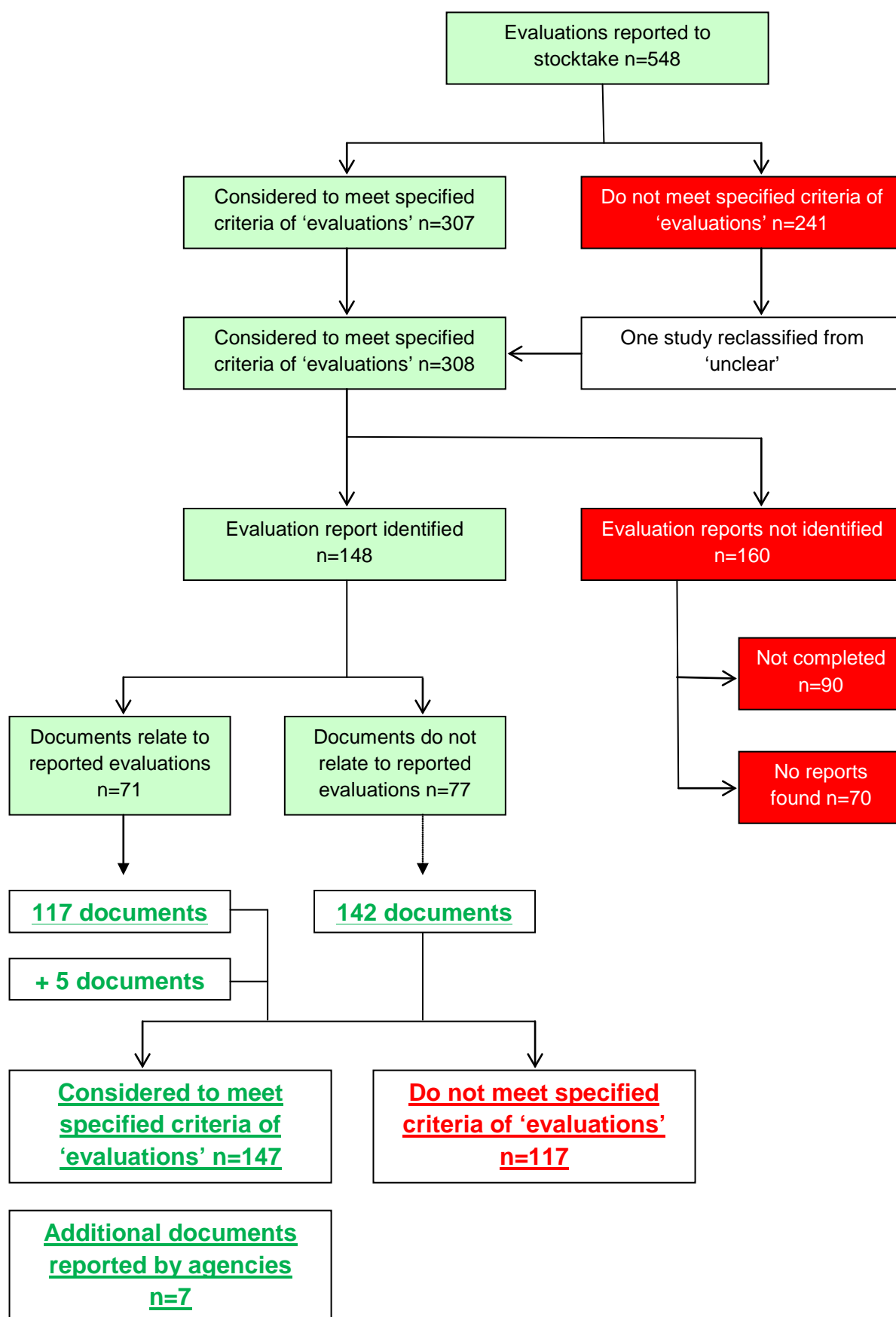
6. The stocktaking exercise had a number of limitations. First, it was not comprehensive. Several agencies, including DFID, GIZ, UNAIDS, USAID and the World Bank emphasised the decentralised nature of their work and the difficulties this created for them in providing a comprehensive list of evaluations conducted.
7. Also, agencies appeared to apply the definition of evaluation, used in the stocktaking exercise, differently and inconsistently. The authors of the stocktaking report identified three categories of evaluation studies meeting the specified definition. These were evaluations of specific interventions, evaluations of projects/programmes and evaluations of national AIDS responses. The authors of the stocktaking report considered that 307 (56%) of the reported studies met these criteria. A further 241 (44%) studies were not considered to meet this definition for various reasons (see Figure 1 and Box 2). These studies included situation analyses (44%); evaluations of the integration of HIV programmes into the health sector (7.1%); studies of knowledge, attitudes and practice (5.4%); national AIDS spending assessments (4.6%); mapping exercises (4.1%); surveillance reports (4.1%) and studies in which the nature of the evaluation was unclear (12%)³.

METHOD

8. For the purpose of this synthesis activity, attempts were made to locate publicly-available evaluation reports for all studies reported to the stocktake that were considered to meet the definition of evaluation (n=307) (see Figure 1). For the purpose of this exercise, reports were taken to include, not only those published in peer-reviewed journals, but also various forms of grey literature, including narrative reports and PowerPoint presentations. Where reports were published in peer-reviewed journals, full text versions of the documents were obtained. In a few cases where reports consisted of conference abstracts, these abstracts were reviewed. Publicly-available was defined as accessible through the Internet using a readily-available search engine (Google). A few reports marked 'draft' were included if obtained through this method. One PowerPoint presentation marked 'please do not quote' was excluded on the basis that it was not truly a

³ For the purpose of this synthesis report, one of these studies was reclassified as an evaluation because a report was located which gave more detail about the study and made it clear that it met the definition of evaluation used both for the stocktake report and this synthesis exercise (see Figure 1)

Figure 1: Method for selecting studies to review: Flow chart



Box 2: Studies reported to the stocktake not considered to meet the definition of evaluation

- 107 situation analyses
- 29 reports in which the nature of the evaluation was considered unclear
- 17 evaluations of the integration of HIV programmes into the health sector
- 13 KAP studies
- 11 National AIDS Spending Assessments
- 10 mapping exercises
- 10 surveillance reports
- 7 evaluations of donor support
- 7 assessments of structural factors
- 6 population size estimates
- 4 M&E system assessments
- 4 organisational development assessments
- 4 national research agendas/inventory
- 3 monitoring activities
- 2 model descriptions
- 1 field test
- 1 visit report
- 1 strategic planning exercise
- 1 protocol development
- 1 annual report
- 1 population-based survey
- 1 policy analysis

public document (see Box 3). In many cases, where a report was published in a peer-reviewed journal, the abstract was freely accessible online but access to the full text document required registration and/or a subscription. In all these cases, the full text document was accessed. Such documents were considered to meet the criterion of being publicly available

9. Significant challenges were faced in identifying these reports from the information supplied to the stocktake, largely because agencies were not requested to provide titles of the evaluation or the title(s) of any report(s) arising from the evaluations. Attempts were made to identify reports using various details provided including the reporting agency; the specified questions; the geographic location and the time frame. This required a much more flexible and adaptable search criteria than are usually used in systematic reviews. In several cases, multiple reports were identified for a single evaluation study. These were all included, documented and stored.
10. In many cases, it was unclear if documents identified related specifically to the reported evaluation or not. If the identified report was considered to meet the definition of an evaluation being used in this synthesis exercise, it was included, documented and stored regardless of whether it was considered to relate to the reported evaluation study or not. As a result, documents were identified in such searches for almost half (148, 48%) of all the included evaluations (n=308). No documents could be identified for more than half (160, 52%) of them. In most of these cases (90, 56%), it appeared that the evaluation had not been completed based on date information provided to the stocktaking exercise. However, in the remaining cases (70, 44%), no report could be located even though the

evaluation should have been completed based on date information provided to the stocktaking exercise (see Figure 1).

11. In order to maximise the number of reports included in the synthesis analysis, no cut off date was applied to the reports identified. This means that reports prior to 2007 were included although evaluations taking place prior to this date were not supposed to have been reported to the stocktaking exercise.
12. A total of 259 documents were identified through this process. Of these, 117 (45%) were considered to relate to 71 evaluation studies reported to the stocktaking exercise. In the case of the remaining 77 evaluation studies reported to the stocktaking exercise, the 142 documents identified did not appear to relate directly to these studies. However, all these documents were included and reviewed. During the review process, a further five documents relating to evaluation studies reported to the stocktaking exercise were identified, bringing the total of documents reviewed to 264 (see Figure 1).
13. These 264 documents were reviewed to see if they met the criteria of evaluation reports outlined above. In addition, only documents in English were included. A total of 147 documents were considered to meet the inclusion criteria, whereas 117 did not (see Figure 1). Summary reasons for exclusion are given in Box 3. In particular:
 - Nine documents, on closer examination, turned out to have little if anything related to HIV
 - 38 documents were classified as 'opinion pieces'. One common feature of all such documents was the absence of any description of method. Description of method was considered to be critical for assessing scientific rigour. There were two main types of 'opinion piece'. The first consisted of guidelines/normative guidance distributed by different agencies, such as WHO, UNAIDS and UNICEF. Such documents are often well-referenced and could be extremely useful guides to relevant evidence. They resemble both literature and systematic reviews. However, in the absence of any description of how the document was assembled, they were excluded. The second type was essentially a referenced essay or statement. These are common in peer-reviewed journals but also occur in grey literature. They share the characteristic of lacking any description of method. They almost certainly contain elements of literature review and may be well-referenced/evidenced. However, in the absence of any description of method, they were excluded from analysis.
 - 19 documents were classified as project descriptions. These had some similarities to project evaluations but lacked descriptions of methods and were usually extremely positive about the project being described. Many examples of 'best practice' fell into this category.
 - Eight documents were classified as situation analyses. These differed from programme evaluations in that they documented a situation, e.g. a

particular group disproportionately affected by HIV. They did not seek to assess the merit or worth of a particular intervention.

- Seven documents were classified as evaluation proposals, protocols or plans. These related to programme evaluations but lacked any description of results or findings.
- Two country UNGASS reports were excluded because it was extremely unclear why UNAIDS had included these but not reports from other countries. Although it can be argued that these are a form of national programme evaluation, it was decided that the synthesis would need to either include all such country reports or exclude them all. The former option was not feasible so these two reports were excluded.
- Seven documents were excluded because they were not in English.
- 12 documents were duplicates and eight were part of other documents.
- One document was marked 'please do not quote' so was considered not to be public and was therefore excluded.

Box 3: Summary reasons for excluding identified documents (117) from analysis

Not HIV-related (9)

Not programme evaluation reports (78)

- Opinion piece (38)
- Project description (19)
- Situation analysis (8)
- Evaluation proposal/protocol/plan (7)
- Strategy (1)
- List of available documents (1)
- Gender analysis (1)
- Validation of tool (1)
- Drug efficacy study (1)
- KAP survey (1)

UNGASS country reports (2)

Not in English (7)

Duplicates (12)

Part of other document (8)

Not public (1)

14. In addition, all agencies (n=18), that were originally contacted for the stocktake, were re-contacted for the synthesis exercise. This was partially to keep them informed of developments but they were also offered the opportunity to submit any reports directly that they wished to ensure were included. A total of seven additional documents were included for analysis from this source (see Figure 1).

15. In analysing the documents, the following details were assessed and entered into an Excel spreadsheet:

- The thematic area in which the evaluation report was reported/identified
- The name(s) of the author(s); the title and any journal reference (if applicable)
- Whether or not a report was publicly available, with comments where applicable, e.g. when a 'report' was a series of PowerPoint slides
- Whether or not the report was in a peer-reviewed journal. For this purpose, conference abstracts were not considered to be a peer-reviewed journal
- Notes on the method followed with comments on strengths and weaknesses/limitations, where appropriate
- Notes on whether or not quantitative data was included with notes on the statistical methods used (if any)
- An assessment of the extent to which the report met the different elements of the definition of evaluation being used
- A numerical code for the level/type of evidence provided (see Box 4). Broadly, these numbers correspond to the level/rigour of evidence. So, the higher the score, the greater the rigour of evidence. However, this is only a rough guide and does not mean that all evidence with a higher number is more rigorous than evidence with a lower number.

Box 4: Levels/types of evidence: Numerical code

0 – Not evaluation – excluded
1 – Expert opinion, meeting report
2 – Literature review
3 – Data triangulation exercise
4 – Country-reported data, e.g. UNGASS reporting
5 – 'Classic' project/programme evaluation – document review, stakeholder interviews, site visits
6 – Non-controlled/qualitative study
7 – Mathematical modelling
8 – Systematic review
9 – Non-randomised controlled trial
10 – Randomised controlled trial

- A subjective assessment of the perceived quality of the evaluation report using a numeric score of 1-3 where 1 is good, 2 is average and 3 is poor. This assessment was made on the basis of a rapid review of the document, focused particularly on method. Default score was average (2). Documents with strong methodological features were classified as good (1). Documents with weak, absent or unclear methodological features were classified as poor (3). An example of a published study considered

to have significant errors in its description of methods is shown in Annex 1 (p93).

- Notes on any comments made in the report about mechanisms in place to ensure independence
 - Notes of any explicit reference made to the OECD-DAC evaluation criteria of relevance, effectiveness, efficiency, impact and sustainability⁴
 - Notes on whether or not the report contained explicit recommendations
16. All included studies were given an alpha-numeric code. The letter (A, B or C) denoted whether the report was considered to relate to an evaluation study reported to the stocktake (A), was an additional study reported directly by an agency to this synthesis analysis (B) or was a study identified in the synthesis analysis based on searching for studies reported to the stocktake but apparently unrelated to them (C). The number relates to level of evidence (see Box 4). So, a study with a code [A10](#) would be a randomised controlled trial related to an evaluation study reported to the stocktaking exercise.
17. In addition, notes were made of any evaluation reports which referred explicitly to recommendations of previous evaluations and progress made in implementing those. Similarly, notes were also made of any management responses to evaluation findings, conclusions and recommendations.
18. Summaries, major findings and recommendations were identified and documented in Word.

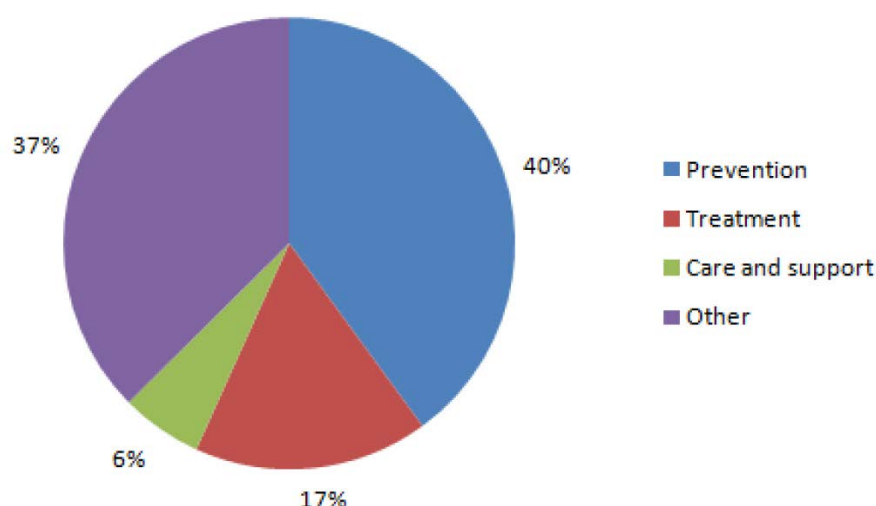
⁴ This was done by searching the documents for the terms 'OECD', 'DAC', 'relevan*', 'effective*', 'efficien*', 'impact' and 'sustain'. These references were then assessed to see the extent to which the purpose of the study reported reflected these particular criteria.

FINDINGS

Areas of thematic focus

19. The documents reviewed covered a wide range of HIV-related issues and topics. In responding to the evaluation stocktake, agencies classified their evaluations into one of four thematic areas – prevention (40%); treatment (17%); care and support (6%) or other (37%) (see Figure 2).

Figure 2: Reported focus of agencies' HIV-related evaluations (from Drew and Peersman, 2011)



20. However, this information was based on classifications made by the reporting agencies. It was unclear if this had been done consistently across and within agencies. For this reason, this synthesis analysis re-assessed and re-classified each of the included papers into one of the four thematic areas – prevention, treatment, care and support and other. Where possible, the categorisations used by agencies were retained. For this reason, HIV testing and counselling was classified as prevention, programmes focused on ART adherence were classified as treatment and services for orphans and vulnerable children were classified as 'other'. In general, the following approach was adopted:

- Prevention included papers on HIV testing and counselling; HIV disclosure; services for particular populations including men who have sex with men, sex workers, migrants/mobile populations, people who inject drugs/injecting drug users⁵; pre-exposure prophylaxis; male circumcision; effect of alcohol on behaviour and HIV transmission; prevention of mother to child transmission; cash transfers⁶; schools programmes; and condoms.

⁵ All papers focused on services for these populations were classified as prevention. It is recognised that some of these services include care and support and treatment services focused on these populations.

⁶ Where the focus was on reducing HIV transmission. Some papers on cash transfers for support of orphans and vulnerable children were classified as 'other'.

- Treatment included various aspects of ART delivery including different models of delivery, cost and cost effectiveness. Other topics covered included adherence monitoring and support; prevention and treatment of malaria among people living with HIV; laboratory monitoring of people living with HIV; effect of funding crisis on HIV services⁷; task shifting; treatment and management of opportunistic infections including tuberculosis and cryptococcus; and resistance to antiretroviral medicines.
- Care and support was used not only for services described explicitly as care and support but also included papers focused on services specifically for people living with HIV.
- 'Other' included evaluations of national HIV responses; evaluations of other broad programmes; evaluations of the roles of NGOs and communities; and all programmes focused on providing services for orphans and vulnerable children. 'Other' also covered some papers⁸ which covered more than one of the thematic areas highlighted in this synthesis – prevention, treatment and care and support.

21. Table 1 shows how the identified papers were classified by reporting agencies and how they were re-classified in this synthesis analysis. Broadly, the classifications were very similar with slightly fewer reports being classified as prevention or treatment in this synthesis analysis and slightly more being classified as 'other'. The seven additional papers sent directly by agencies were not classified by the agencies. These were classified specifically for this synthesis analysis (see Table 1).

22. Figure 3 shows the reported thematic focus of identified evaluation reports. Almost half (40%) related to prevention with just under one third (31%) related to treatment and just over a quarter (27%) related to other areas. The relative high number of reports on treatment evaluations may indicate that these evaluations are more likely to be published or that they are easier to find. The relatively low number of reports on care and support evaluations is partly due to care and support rarely being evaluated alone but as part of broader prevention or treatment programmes. It also reflects that programmes for orphans and vulnerable children were classified as 'other' rather than as care and support.

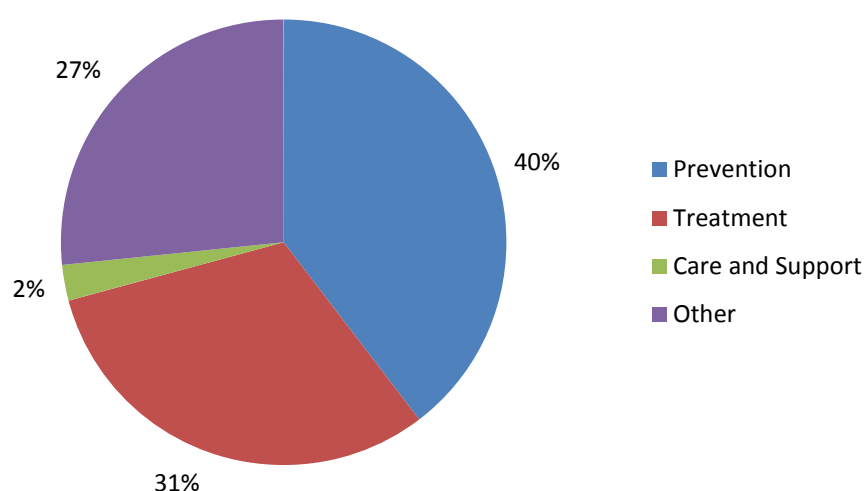
⁷ Some of these papers included a focus on prevention services. However, the main focus was on treatment services, so they were included here.

⁸ For example, the 2008 DANIDA synthesis review featured in Box 7¹¹⁷

Table 1: Thematic Classification of reviewed papers

As classified in stocktake		As classified in synthesis analysis			
		Prevention	Treatment	Care and support	Other
Prevention	59	47	0	3	9
Treatment	52	4	48	0	0
Care and support	4	3	0	0	1
Other	32	3	0	1	28
Additional ⁹	7	4	0	0	3
Total	154	61	48	4	41

Figure 3: Focus of identified evaluation reports (n=154)

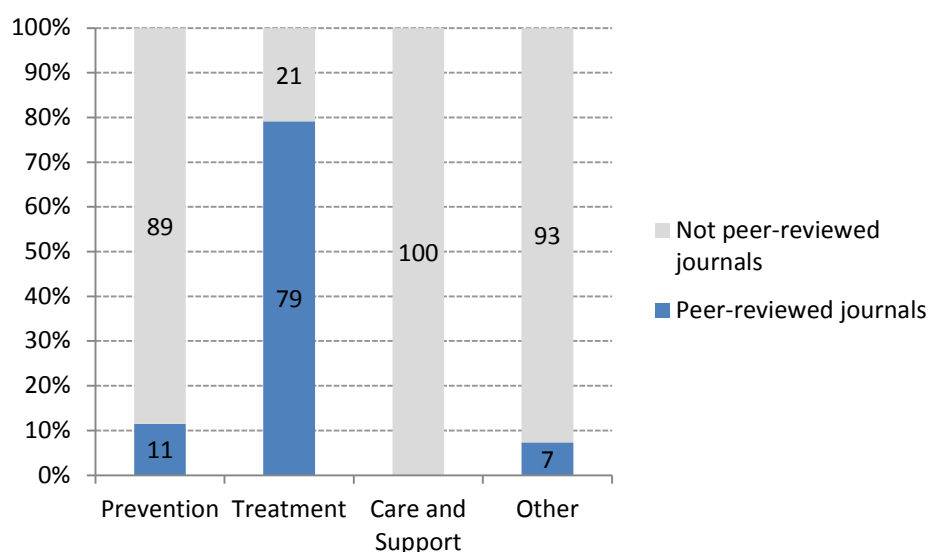


Publication in peer-reviewed journals

23. Almost one third (31%; n=48) of the identified documents (n=154), had been published in peer-reviewed journals. More than three quarters (79%; n=38) of these were treatment-related. Figure 4 illustrates the percentage of documents in each thematic category that were published in peer-reviewed journals. This was much higher (79%) for treatment-related evaluation reports than for those relating to prevention (11%), 'other' (7%) or care and support (0%).

⁹ Those seven studies reported by agencies directly to this synthesis process, i.e. these studies were not included in the stocktake.

Figure 4: Percentage of evaluation reports (n=154) appearing in peer-reviewed journals by thematic category

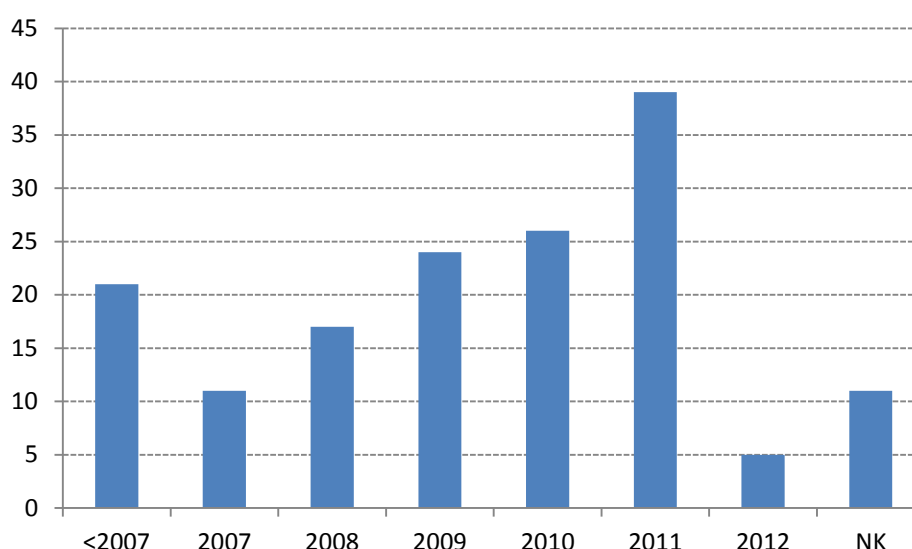


Dates of reports

24. A small number of the reports (n=21; 14%) were dated prior to 2007, i.e. these pre-dated the period of focus of the evaluation stocktake. More than half (n=89; 58%) were reports dated 2009-2011 (See Figure 5). Although the synthesis analysis was conducted in the first quarter of 2012, a small number of reports (n=5) were dated 2012. In some cases (n=11), the date of the report was not known.

Figure 5: Number of evaluation reports by year of publication

NK= not known



Types of study

25. Based on a review of the description of method, studies were classified into a number of different categories (see Box 4). Table 2 shows how these categories

were distributed across the studies overall and by each of the four thematic areas – prevention, treatment, care and support and other.

Table 2: Types of evaluation report: Overall and by thematic area

	Expert opinion/meeting report	Literature review	Data triangulation exercise	Country-reported data	'Classic' programme/project evaluation	Non-controlled/qualitative study	Mathematical modelling	Systematic review	Non-randomised controlled trial	Randomised-controlled trial	Evaluation follow-up
Prevention	5	7	0	0	16	9	3	7	3	11	0
Treatment	1	1	0	1	2	26	2	5	4	6	0
Care and Support	0	0	0	0	1	3	0	0	0	0	0
Other	0	5	1	3	25	3	0	1	1	1	1
Total	6	13	1	4	44	41	5	13	8	18	1

26. Overall, more than half (n=85; 55%) of all the reports related to 'classic' programme/project evaluations (n=44) or non-controlled/qualitative studies (n=41). 'Classic' programme evaluations accounted for more than a quarter (n=16; 26%) of all prevention evaluation reports and almost two thirds (n=25; 61%) of all evaluation reports classified as 'other'. Non-controlled studies accounted for more than half (n=26; 54%) of all treatment evaluations and three out of four care and support evaluations. Randomised controlled trials accounted for 18 (12%) of all evaluation reports. Surprisingly, most of these (n =11; 61%) were conducted in the area of prevention with only 6 (33%) being focused on treatment. However, the impression this creates is misleading as this is the number of reports and not the number of evaluations. In some cases, there are multiple reports generated from the same evaluation.
27. There were six studies which were classified as expert opinion/meeting reports (see Box 5). In many ways, these resembled some of the many opinion pieces identified which were excluded as not meeting the criteria of evaluations (see Box 3). The main difference between these reports and those opinion pieces was the inclusion of some methodological description however rudimentary.

Box 5: Examples of expert opinions/meeting reports included in this analysis

In 2008, the Gates Foundation, WHO and UNAIDS supported a round table meeting on male circumcision in Washingtonⁱ.

Also, in 2008, the Global HIV Prevention Working Group produced a paper on behaviour change and HIV prevention – (re) considerations for the 21st Centuryⁱⁱ.

In 2010, an expert panel produced guidance for the US Congress and the US Global AIDS Coordinator on prevention of mother to child transmission (PMTCT)ⁱⁱⁱ. In 2009, UNICEF, WHO, UNAIDS and Vanderbilt School of Medicine hosted a consultative meeting on the impact of PMTCT services on averting new HIV infections in children and improving child survival^{iv}. In 2010, EGPAF and WHO produced an intelligence report on HIV care and PMTCT in resource-limited settings which consisted of a collection of relevant abstracts^v.

In 2011, the sixth conference on HIV treatment and prevention adherence published a series of abstracts related to issues regarding adherence to antiretroviral therapy^{vi}.

ⁱ Forum for Collaborative HIV Research, the Bill and Melinda Gates Foundation, WHO and UNAIDS (2008) *Evaluation of Impact of Adult Male Circumcision Programs on HIV Incidence and Prevalence: Current Research, Gaps in Knowledge and Recommendations for Additional Research* [A1](#)

ⁱⁱ Global HIV Prevention Working Group (2008) *Behaviour Change and HIV Prevention: (Re)Considerations for the 21st Century* [C1](#)

ⁱⁱⁱ Expert Panel (2010) *PMTCT of HIV: Expert Panel Report and Recommendations to the US Congress and US Global AIDS Coordinator* [C1](#)

^{iv} UNICEF, WHO, UNAIDS and Vanderbilt School of Medicine (2009) *Consultative Meeting on Evaluating the Impact of PMTCT Services in Low- and Middle-Income Countries in Averting New Infections in Children and Improving Child Survival* [C1](#)

^v EGPAF and WHO (2010) *HIV Care & PMTCT in Resource-Limited Settings* [C1](#)

^{vi} IAPAC, NIMH and PIM (2011) *6th International Conference on HIV Treatment and Prevention Adherence* [C1](#)

28. There were 13 studies which were classified as literature reviews (see Box 6). In many cases, these were self-defined. They largely differed from systematic reviews in terms of having a less well-defined research question, less rigorous/rigid search criteria and less rigorous/rigid inclusion criteria. In particular, these reviews did not present a flow chart of how they identified and selected documents. In some cases, some of these studies were supplemented with other methods, e.g. interviews, but in all cases the literature review was the main part of the method. In some ways, these literature reviews are similar in style and content to other reports defined as opinion pieces and excluded from this analysis (see Box 3). They differed in terms of always having some description of method.
29. In many ways, data triangulation exercises resemble literature reviews although they may be more focused on epidemiological and implementation data than on more formally-published literature. One example¹⁰ of a data triangulation exercise in Nigeria was encountered. This was reported in an abstract for an international AIDS conference. It was difficult to judge the quality of work based on the abstract alone but it appeared that very sweeping conclusions were being drawn from very limited data.

¹⁰ Anosike, A.O., Adebunmi, A.A. and Agbo, F.A. (2011) *Analysis of the Status of the HIV/AIDS Epidemic in Abia State, Nigeria* ICASA CD020 [A3](#)

Box 6: Examples of literature reviews included in this analysis

A wide range of topics have been evaluated through literature reviews including strategies for prioritising adherence to ARTⁱ.

A number of literature reviews examined issues affecting key populations including sex workersⁱⁱ, people who inject drugs^{iii,iv} and their children^v. There have also been literature reviews focused on prison settings^{vi}.

There have also been literature reviews of services in particular countries, including harm reduction in Russia^{vii} and HIV prevention overall in Moldova^{viii}. In China, there have been literature reviews of the overall response^{ix} and of the role of civil society organisations^x in the response.

Part of the World Bank/DFID evaluation of community responses to HIV included a literature review to develop a typology of community-based organisations^{xi}. There was also a literature review focused on community interventions for orphans and vulnerable children^{xii}.

Literature reviews have also been used to examine political/policy issues, such as the politics of how policies are determined^{xiii}.

ⁱ Simoni, J.M., Amico, K.R., Pearson, C.R. and Malow, R. (2008) *Strategies for Promoting Adherence to ART: A Review of the Literature* Current Infectious Disease Reports 2008, 10:515–521 [C2](#)

ⁱⁱ WHO (2011) *Preventing HIV among Sex Workers in Sub-Saharan Africa: A Literature Review* [C2](#)

ⁱⁱⁱ WHO (2004) *Effectiveness of Sterile Needle and Syringe Programming in Reducing HIV/AIDS among Injecting Drug Users* [C2](#)

^{iv} Needle, R.H. and Zhao, L. (2010) *HIV Prevention among Injection Drug Users: Strengthening US Support for Core Interventions* [C2](#)

^v Beard, J., Biemba, G., Brooks, B., Bresnahan, M., Flynn, D. and Simon, J. (2010) *Children of Female Sex Workers and Injection Drug Users: A Review of Vulnerability, Resilience, and Family-Centred Models of Care in Low and Middle-Income Countries* [C2](#)

^{vi} Canadian HIV/AIDS Legal Network (2006) *Prison Needle Exchange: Lessons from a Comprehensive Review of International Evidence and Experience* [C2](#)

^{vii} OHI (undated) *Harm Reduction Programs in the Civilian and Prison Sectors of the Russian Federation: Assessment of Best Practices* [C2](#)

^{viii} Bivol, S., Vladicescu, N., Lazarescu, L., Dumitrascu, A. and Osadci, O. (2011) *Evaluation of HIV Prevention Programmes in the Republic of Moldova 2010* [A2](#)

^{ix} Li, J., Ha, T.H., Zhang, C. and Liu, H. (2010) *The Chinese Government's Response to Drug Use and HIV/AIDS: A Review of Policies and Programs* Harm Reduction Journal 2010, 7:4 [A2](#)

^x Li, H., Kuo, N.T., Liu, H., Korhonen, C., Pond, E., Guo, H., Smith, L., Xue, H. And Sun, J. (2010) *From Spectators to Implementers: Civil Society Organizations Involved in AIDS Programmes in China* International Journal of Epidemiology 2010 39:ii65–ii71 [A2](#)

^{xi} Rodriguez-Garcia, R., Bonnel, R., N'Jie, N., Olivier, J., Pascual, F.B. and Wodon, Q. (2011) *Analyzing Community Responses to HIV and AIDS: Operational Framework and Typology: Policy Research Working Paper 5532* [A2](#)

^{xii} Schenk, K. (2008) *What have we Learnt? A Review of Evaluation Evidence on Community Interventions Providing Care and Support to Children who have been Orphaned and Rendered Vulnerable* [C2](#)

^{xiii} Dickinson, C. and Buse, K. (2008) *Understanding the Politics of National HIV Policies: The Roles of Institutions, Interests and Ideas* [C2](#)

30. There are a number of HIV-related monitoring and reporting processes which involve country-generated reports on particular topics and indicators. These include UNGASS and Universal Access reporting. Two country UNGASS reports were submitted to the evaluation stocktake but these have been excluded from this synthesis analysis on the grounds of inconsistency (see Box 3). The reports included are:

- A regional report for Asia-Pacific on ART scale-up based on reporting on achieving Universal Access in the health sector¹¹

¹¹ Srikantiah, P., Ghidinelli, M., Bachani, D., Chasombat, S., Daoni, E., Mustikawati, D.E., Nhan, D.T., Pathak, L.R., San, K.O., Vun, M.C., Zhang, F., Lo, Y-R. and Narain, J.P. (2010) *Scale-up of National ART Programs: Progress and Challenges in the Asia-Pacific Region* AIDS 2010, 24 (suppl 3):S62–S71 [C4](#)

- A regional report for Europe and Central Asia on progress in implementing the Dublin Declaration¹²
- A global report on progress in achieving Universal Access in the health sector¹³
- A global report on progress in implementing the Three Ones¹⁴

31. Reports were considered to be ‘classic’ programme/project evaluations if they involved evaluators using a method largely based on reviewing documents, interviewing stakeholders and making selected site visits. Usually, these activities are conducted over a relatively short time scale. A large number (n=44) of evaluations of this type of evaluation were encountered during this synthesis analysis. Evaluations of this type particularly covered the thematic areas of prevention (n=16) and ‘other’ (n=25). Evaluations of this type were conducted at a range of geographical levels:

- Local-level evaluations included assessment of PMTCT services at Davao Medical Center in the Philippines¹⁵ and two evaluations of children’s services at Chikankata Hospital in Zambia^{16,17}.
- Evaluations of HIV services in two Chinese provinces^{18,19}.
- Evaluations of large, national-level projects in Botswana²⁰, India^{21,22}, Nepal²³ and Zimbabwe²⁴.
- Evaluations of donor/agency support in Afghanistan²⁵, Indonesia^{26,27}, Kenya²⁸, Philippines²⁹ and Tajikistan³⁰. In at least one case²⁷, this report was part of a larger global evaluation.

¹² ECDC (2010) *Implementing the Dublin Declaration on Partnership to Fight HIV/AIDS in Europe and Central Asia: 2010 Progress Report* [A4](#)

¹³ WHO, UNAIDS and UNICEF (2010) *Towards Universal Access: Scaling Up Priority HIV/AIDS Interventions in the Health Sector Progress Report 2010* [C4](#)

¹⁴ UNAIDS (2005) *The Three Ones in Action: Where We Are and Where We Go from Here*

¹⁵ Belimac, J.G., Faldas, R., Nadoll, M., Castro, P. and Salva, M. (2008) *Review of the Pilot Phase of PMTCT: Davao Medical Center* [A5](#)

¹⁶ Mulenga, S. (2002) *Report on the Evaluation of the UNICEF Supported Chikankata CBOSP and OVC Training Projects* [A5](#)

¹⁷ Salvation Army World Service Office (2011) Salvation Army/Zambia (TSA), Salvation Army World Service Office (SAWSO), and TSA Chikankata Health Services *Chikankata Child Survival Project (CCSP), 2005-2010: Final Evaluation Report* [A5](#)

¹⁸ MSF and Guangxi CDC (undated) *Joint Review of Guangxi CDC/MSF-F HIV Project* [A5](#)

¹⁹ Shah, N. (2009) *A Comprehensive Evaluation of a HIV/AIDS Surveillance System Guangdong Province, China, 2007* [A5](#)

²⁰ JSI (undated) *Botswana Evaluation of the African Comprehensive HIV/AIDS Partnership (ACHAP)* [C5](#)

²¹ Bill and Melinda Gates Foundation (2008) *Avahan - The India AIDS Initiative: The Business of HIV Prevention at Scale* [A5](#)

²² Bill and Melinda Gates Foundation (2008) *Use It or Lose It: How Avahan Used Data to Shape its HIV Prevention Efforts in India* [A5](#)

²³ Molldrem, V., Justice, J., Sharma, M. and Thapa, P. (2010) *Evaluation of 'Advancing Surveillance, Policies, Prevention, Care and Support to Fight HIV/AIDS in Nepal(ASHA) Project'* [C5](#)

²⁴ McDermott, P., Brakarsh, J., Chigara, P., Cogswell, L., Coombe, C., Himelfarb, T., Loudon, M. and Williamson, J. (2003) *Report on the Mid-Term Review of the STRIVE Project* [C5](#)

²⁵ UNODC (2008) *Thematic Evaluation of the Technical Assistance Provided to Afghanistan by the UNODC: Consolidated Evaluation Report* [A5](#)

²⁶ IPR Team (2009) *Independent Progress Report: Clinton HIV/AIDS Initiative in Indonesia* [C5](#)

²⁷ Jansen, P.L., Petersen, G. and Darmawi, V. (2008) *UNAIDS Second Independent Evaluation: 2002-2008 Country Visit to Indonesia: Summary Report* [C5](#)

- Evaluations of national thematic programmes, e.g. PMTCT in Indonesia³¹ and Moldova³²; services for people who inject drugs in Romania^{33,34} and Russia³⁵; condoms in Thailand³⁶; and care and support in Ghana³⁷.
- Evaluations of national HIV responses in Dominican Republic³⁸, Macedonia³⁹, Nepal⁴⁰, Sri Lanka⁴¹ and Ukraine⁴².
- Evaluations of a wide range of regional programmes in Africa^{43,44,45,46,47,48,49} Asia^{50,51} and Europe/Central Asia^{52,53,54,55}.

²⁸ Nyamweya, P., Chesoni, A., Muwanga, N., Ogwang, E., Karanja, J., Kanyinga, K. and Sloth-Nielsen, J. (2007) *SIDA Support to the UNICEF Country Programme in Kenya* [A5](#)

²⁹ Chaudhuri, A., Xiaochun, W., Salva, M., Belimac, G. and Mosende, Z. (2008) *External Evaluation of Global Fund Round 5: HIV Component* [A5](#)

³⁰ Hsu, L-N., Dodarbekov, M., Rakhimovna, S., Sinavbarov, M., Nikolaevna, B.T. and Trupanova, B. (2007) *Outcome Evaluation of HIV Programme of UNDP Tajikistan* [C5](#)

³¹ Laksmono, L.H. and Setyahadi, M.I. (2006) *A National Assessment for Preventing HIV in Mother and Children: An Indonesian Story* [A5](#)

³² Parkhomenko, Z. (2009) *Needs Assessment Study: PMTCT Programme in the Republic of Moldova* [A5](#)

³³ Curtis, M. (2009) *HIV/AIDS Prevention and Care among IDUs and in Prison Settings in Romania: Mid-Term Evaluation* [A5](#)

³⁴ Van der Gouwe, D. (2011) *HIV/AIDS Prevention and Care among Injecting Drug Users and in Prison Settings in Romania: Final Evaluation* [B5](#)

³⁵ Osipov, K. and Gorshkova, I.D. (2011) *Scaling-up and Increasing Access to HIV Prevention and Care Services among Injecting Drug Users and in Prisons of the Russian Federation (2006-2011)* [B5](#)

³⁶ UNAIDS and Ministry of Public Health (2000) *Evaluation of the 100% Condom Programme in Thailand* [C5](#)

³⁷ Simwanza, A. (2005) *Scaling up the District Response Initiative to integrate Care and Support of those Infected and Affected by HIV/AIDS in Ghana: Final Report on Mid-Term Review* [C5](#)

³⁸ PAHO and UNICEF (2008) *Evaluation of the National Health System Response to HIV in the Dominican Republic: A Political, Managerial and Technical Tool for Progressing Towards Universal Access* [A5](#)

³⁹ Elliott, L. (2010) *Report of the Mid-Term Review of the National HIV/AIDS Strategy 2007-2011 Former Yugoslav Republic of Macedonia* [A5](#)

⁴⁰ Sadanandan, R., De Lind van Wijngaarden, J.W., Hutter, N. and Kumar, P. (2007) *Review of the UNDP/DFID Support to the National HIV/AIDS Response in Nepal* [A5](#)

⁴¹ WHO, Ministry of Healthcare and Nutrition and UNAIDS (2006) *Review of the National Response to STIs and HIV/AIDS in Sri Lanka* [A5](#)

⁴² Elo, O. (2009) *Comprehensive External Evaluation of the National AIDS Response in Ukraine* [A5](#)

⁴³ Rutenberg, N., Baek, C., Kalibala, S. and Rosen, J. (2003) *Evaluation of UN-supported Pilot Projects for the PMTCT of HIV: Overview of Findings* [C5](#)

⁴⁴ Lee, T. (2010) *PHAMSA II Evaluation Report* [B5](#)

⁴⁵ Whitcomb, G. (2001) *Evaluation of the UNAIDS Inter-Country Team for Western and Central Africa* [A5](#)

⁴⁶ Sinclair, R.N. and Aggarwal, N. (2008) *SIDA's Support to the Eastern and Southern African Regional Office of UNICEF: Mainstreaming a Rights Based Approach to Safeguard the Rights of Children Orphaned by HIV/AIDS* [A5](#)

⁴⁷ Anonymous (2011) *Evaluation of the SADC PF HIV/AIDS Programme 2007-2011: Final Report* [B5](#)

⁴⁸ Khan, M. and Brady, R. (2011) *Evaluation of the International HIV/AIDS Alliance's Africa Regional Programme (ARP) Phase 2* [B5](#)

⁴⁹ FAFO (undated) *Evaluation of UNICEF's SIDA-funded Child Protection/Trafficking Program in West Africa* [A5](#)

⁵⁰ Lawyers Collective HIV/AIDS Unit (2007) *Prevention of Transmission of HIV among Drug /users in SAARC Countries: Legal and Policy Concerns Related to IDU Harm Reduction in SAARC Countries* [A5](#)

⁵¹ Klein, A. (undated) *Final Evaluation RAS/AD/RASI09 Strengthening Comprehensive HIV/AIDS Prevention and Care for Drug Abusers in Custodial and Community Settings* [A5](#)

⁵² Osipov, K. (2010) *Effective HIV Prevention and Care among Vulnerable Populations in Central Asia and Azerbaijan* [A5](#)

- Global-level evaluations, e.g. on funding mechanisms for community responses⁵⁶ and the effect of the global financial crisis on HIV responses⁵⁷. There was also an evaluation of the work of HIVOS⁵⁸.
32. In two cases, both of UNODC evaluations, there were mid-term and end-of-term evaluations for the same projects/programmes^{33,34,53,54}.
33. Evaluations classified as non-controlled or qualitative studies differed from 'classic' programme/project evaluations in that they had a strong focus on primary data collection and a longer time frame. They differed from non-randomised and randomised controlled trials in not having a comparison group. A large number (n=41) of evaluations of this type of evaluation were encountered during this synthesis analysis. Evaluations of this type particularly covered the thematic area of treatment (n=26). In some cases, these evaluations used a variety of methods. In those cases, they have been classified according to most prominent method. Evaluations included in this group were of a wide variety of different types including:
- Prospective, cohort studies in a range of different areas including PMTCT⁵⁹; pre-ART mortality⁶⁰; benefits of ART^{61,62}; ART adherence⁶³; ART resistance⁶⁴; detection and management of opportunistic infections, including cryptococcus⁶⁵ and tuberculosis^{66,67,68,69}; and support for women

⁵³ Drew, R. (2009) *Mid-Term Evaluation of UNODC Project XEEJ20: HIV/AIDS Prevention and Care among IDUs and in Prison Settings in Estonia, Latvia and Lithuania* [A5](#)

⁵⁴ Redonnet, B. (2011) *HIV/AIDS Prevention and Care among Injecting Drug Users and in Prison Settings in Estonia, Latvia and Lithuania: Final Evaluation Report* [B5](#)

⁵⁵ ECDC (2012) *Monitoring Implementation of the European Commission Communication and Action Plan to Combat HIV/AIDS in the EU and Neighbouring Countries 2009-2013* [B5](#)

⁵⁶ Bonnel, R., Rodriguez-Garcia, R., Olivier, J., Wodon, Q., McPherson, S., Orr, K. and Ross, J. (2012) *Funding Mechanisms for the Community Response to HIV and AIDS* [A5](#)

⁵⁷ UNAIDS and the World Bank (2009) *The Global Economic Crisis and HIV Prevention and Treatment Programmes: Vulnerabilities and Impact* [A5](#)

⁵⁸ Phlix, G., Aantjes, C., Jurgens, E., Motihar, R. and Lopez, R. (2010) *Evaluation of the HIV and AIDS Program Implemented by HIVOS in the Period 2000-2009* [C5](#)

⁵⁹ Thorne, C., Semenenko, I., Pilipenko, T., Malyuta, R. and the Ukraine European Collaborative Study (2009) *Progress in PMTCT of HIV Infection in Ukraine: Results from a Birth Cohort Study* BMC Infectious Diseases 2009, 9:40 [A6](#)

⁶⁰ Sutcliffe, C.G., Van Dijk, J.H., Munsanje, B., Hamangaba, F., Siniwyaanzi, P., Thuma, P.E. and Moss, W.J. (2011) *Risk Factors for Pre-Treatment Mortality among HIV-Infected Children in Rural Zambia: A Cohort Study* PLoS ONE 6(12): e29294. [A6](#)

⁶¹ Sutcliffe, C.G., Van Dijk, J.H., Munsanje, B., Hamangaba, F., Siniwyaanzi, P., Thuma, P.E. and Moss, W.J. (2011) *Weight and Height Z-Scores Improve after Initiating ART among HIV-Infected Children in Rural Zambia: A Cohort Study* BMC Infectious Diseases 2011, 11:54 [A6](#)

⁶² Van Dijk, J.H., Sutcliffe, C.G., Munsanje, B., Sinywimaanzi, P., Hamangaba, F., Thuma, P.E. And Moss, W. J. (2011) *HIV-Infected Children in Rural Zambia Achieve Good Immunologic and Virologic Outcomes Two Years After Initiating ART* PLoS ONE 6(4): e19006 [A6](#)

⁶³ Tepper, V.J., Bachanas, P., Zamani, A.E., Bowman, D.A., Lydecker, A., Yilme, S. and Farley, J.J. (2011) *Evaluation of Adherence to ART in Children in Nigeria* IAS 2011 [A6](#)

⁶⁴ Ruel, T.D., Kamya, M.R., Li, P., Pasutti, W., Charlebois, E.D., Liegler, T., Dorsey, G., Rosenthal, P. J., Havlir, D.V., Wong, J.K. and Achan, J. (2011) *Early Virological Failure and the Development of Antiretroviral Drug Resistance Mutations in HIV-infected Ugandan Children* JAIDS 2011 January 1; 56(1): 44–50 [C6](#)

⁶⁵ Wajanga, B.M.K., Kalluvya, S., Downs, J.A., Johnson, W.D., Fitzgerald, D.W. and Peck, R.N. (2011) *Universal Screening of Tanzanian HIV-infected Adult Inpatients with the Serum Cryptococcal*

living with HIV^{70,71}. In some cases, one cohort was used to generate several different reports^{60,61,62}.

- A sub-set of prospective, cohort studies focused on assessing feasibility, acceptability and/or proof of concept. Areas covered included self-testing for HIV⁷² and use of cell phones to promote ART adherence^{73,74}.
- Cross-sectional surveys in which individuals are identified nationally, e.g. on PMTCT⁷⁵ and ART adherence⁷⁶. In the case of the study on PMTCT, regression analysis was used to identify factors leading to benefits from PMTCT.
- Cross-sectional surveys in which individuals are identified from facilities, e.g. a survey on PMTCT and family planning practices⁷⁷.
- Cross-sectional surveys in which individuals are identified from programmes/interventions, e.g. to evaluate access to and utilisation of PMTCT services in Rwanda⁷⁸; to identify barriers to care experienced by

Antigen to Improve Diagnosis and Reduce Mortality: An Operational Study Journal of the International AIDS Society 2011, 14:48 [C6](#)

⁶⁶ Cain, K.P., McCarthy, K.D., Heilig, C.M., Monkongdee, P., Tasaneeyapan, T., Kanara, N., Kimerling, M.E., Chheng, P., Thai, S., Sar, B., Phanuphak, P., Teeratakulpisarn, N., Phanuphak, N., Dung, N.H., Quy, H.T., Thai, L.H., and Varma, J.K. (2010) *An Algorithm for TB Screening and Diagnosis in People with HIV* NEJM 362:8 [C6](#)

⁶⁷ Koole, O., Thai, S., Khun, K.E., Pe, R., Van Griensven, J., Apers, L., Van den Ende, J., Mao, T.E. and Lynen, L. (2011) *Evaluation of the 2007 WHO Guideline to Improve the Diagnosis of TB in Ambulatory HIV-Positive Adults* PLoS ONE 6(4): e18502 [C6](#)

⁶⁸ Worodria, W., Massinga-Loembe, M., Mayanja-Kizza, H., Namaganda, J., Kambugu, A., Manabe, Y.C., Kestens, L. and Colebunders, R. (2011) *ART-associated TB in a Prospective Cohort of HIV-infected Patients Starting ART* Clinical and Developmental Immunology, Volume 2011 [C6](#)

⁶⁹ Van Rie, A., Weistreich, D. and Sanne, I. (2011) *TB in Patients Receiving ART: Incidence, Risk Factors and Prevention Strategies* JAIDS 2011; 56:349-355 [C6](#)

⁷⁰ CGHD, COHED and Life Center (2010) *Engendering the Care and Treatment Response: Addressing the Needs of Women Living with HIV in Vietnam* [C6](#)

⁷¹ Messersmith, L., Semrau, K., Tran, L.A., Nguyen, N.T., Dao, M.H., Eifler, K. and Sabin, L. (2010) *Contested Sexual and Reproductive Rights of Women Living with HIV in Viet Nam: Experience with Health Care Providers and Family Members in Sexual Health Decision-making* AIDS 2010, WEPE0636 [C6](#)

⁷² Kalibala, S., Tun, W., Muraah, W., Cherutich, P., Oweya, E. and Oluoch, P. (2011) *Knowing Myself First: Feasibility of Self-Testing among Health Workers* [A6](#)

⁷³ Crankshaw, T., Corless, I.B., Giddy, J., Nicholas, P.K., Eichbaum, Q. And Butler, L.M. (2010) *Exploring the Patterns of Use and the Feasibility of Using Cellular Phones for Clinic Appointment Reminders and Adherence Messages in an ART Clinic, Durban, South Africa* AIDS Patient Care and STDs, Volume 24, Number 11 [A6](#)

⁷⁴ Lester, R. T., Gelmon, L. and Plummer, F.A. (2006) *Cell Phones: Tightening the Communication Gap in Resource-Limited ARV Programmes* AIDS 2006 Nov 14;20(17):2242-4. [A6](#)

⁷⁵ Ruton, H., Mugwaneza, P., Shema, N., Lyambabaje, A., Bizimana, J. de D., Tsague, L., Nyankesha, E., Wagner, C.M., Mutabazi, V., Nyemazi, J. P., Nsanzimana, S., Karema, C. and Binagwaho, A. (2012) *HIV-Free Survival among 9-24-month-old- Children Born to HIV-Positive Mothers in the Rwandan National PMTCT Programme: A Community-Based Household Survey* Journal of the International AIDS Society: 15:4 [A6](#)

⁷⁶ Charurat, M., Oyegunle, M., Benjamin, R., Habib, A., Eze, E., Ele, P., Ibanga, I., Ajayi, S., Eng, M., Mondal, P., Gebi, U., Iwu, E., Etiebet, M-A., Abmiku, A., Dakum, P., Farley, J. and Blattner, W. (2010) *Patient Retention and Adherence to Antiretrovirals in a Large Antiretroviral Therapy Program in Nigeria: A Longitudinal Analysis for Risk Factors* PLoS ONE 5(5): e10584. doi:10.1371/journal.pone.0010584 [C6](#)

⁷⁷ Vartapetova, N.V. and Karpushkina, A.V. (2006) *Prevention of Mother to Child Transmission of HIV and Family Planning Practices in HIV-Infected Women: Facility Survey: Report of Main Findings* [C6](#)

⁷⁸ Ministry of Health (2007) *Evaluation of Access to and Utilization of Services for the PMTCT of HIV in Rwanda* [A6](#)

HIV positive children in Zambia⁷⁹; to identify barriers to ART adherence among young people in the USA⁸⁰; and to study virological efficacy and emergence of resistance among adults in Tanzania⁸¹.

- Cross-sectional surveys of facilities, e.g. in defining 'lost to follow-up' in ART programmes⁸² and in studying care and support services in Uganda⁸³.
- Retrospective, record-based studies focused on risks of ART non-adherence and loss to follow-up in Nigeria⁸⁴; comparing ART adherence among adults and adolescents in Southern Africa⁸⁵; identifying predictors of successful early infant diagnosis⁸⁶; and the effect of performance-based contracting⁸⁷.
- Qualitative studies using individual interviews, focused on alcohol and risks for HIV transmission in Namibia⁸⁸; perceived barriers to ART adherence among US adolescents⁸⁹, Ethiopian children⁹⁰ and Mozambican adults⁹¹; AIDS policy training, gender and human rights⁹².

⁷⁹ Van Dijk, J.H., Sutcliffe, C.G., Munsanje, B., Hamangaba, F., Thuma, P.E. and Moss, W.J. (2009) *Barriers to the Care of HIV-Infected Children in Rural Zambia: A Cross-Sectional Analysis* BMC Infectious Diseases 2009; 9: 169 [A6](#)

⁸⁰ Rudy, B.J., Murphy, D.A., Harris, D.R., Muenz, L. and Ellen, J. (2009) *Patient-related Risks for Non-adherence to ART among HIV-infected Youth in the United States: A Study of Prevalence and Interactions* AIDS Patient Care and STDs Volume 23 Number 3: 185-194 [C6](#)

⁸¹ Johannessen, A., Naman, E., Kivuyo, S.L., Kasubi, M.J., Holberg-Petersen, M., Matee, M.I., Gundersen, S.G. and Bruun, J.N. (2009) *Virological Efficacy and Emergence of Drug Resistance in Adults on ART in Rural Tanzania* BMC Infectious Diseases 2009, 9:108 [C6](#)

⁸² Chi, B.H., Yiannoutsos, C.T., Westfall, A.O., Newman, J.E., Zhou, J., Cesar, C., Brinkhof, M.W.G., Mwango, A., Balestre, E., Carriquiry, G., Sirisanthana, T., Mukumbi, H., Martin, J.N., Grimsrud, A., Bacon, M. and Thiebaut, R. (2011) *Universal Definition of Loss to Follow-Up in HIV Treatment Programs: A Statistical Analysis of 111 Facilities in Africa, Asia, and Latin America* PLoS Med 8(10): e1001111 [C6](#)

⁸³ Harding, R., Simms, V., Penfold, S., Namisango, E., Nkurunziza, G.B., Kwebiha, C.N., Teera-Ssentoogo, J., Downing, J., Pwell, R.A., Mwangi-Powell, F. and Higginson, I.J. (2009) *PEPFAR Public Health Evaluation Care and Support: Summary: Phase 1 Uganda* [C6](#)

⁸⁴ Charurat, M., Oyegunle, M., Benjamin, R., Habib, A., Eze, E., Ele, P., Ibanga, I., Ajayi, S., Eng, M., Mondal, P., Gebi, U., Iwu, E., Etiebet, M-A., Abmiku, A., Dakum, P., Farley, J. And Blattner, W. (2010) *Patient Retention and Adherence to Antiretrovirals in a Large Antiretroviral Therapy Program in Nigeria: A Longitudinal Analysis for Risk Factors* PLoS ONE 5(5): e10584. doi:10.1371/journal.pone.0010584 [A6](#)

⁸⁵ Nachega, J.B., Hislop, M., Nguyen, H., Dowdy, D.W., Chaisson, R.E., Regensberg, L., Cotton, M. and Maartens, G. (2009) *ART Adherence, Virologic and Immunologic Outcomes in Adolescents Compared with Adults in Southern Africa* J Acquir Immune Defic Syndr 2009;51:65–71 [C6](#)

⁸⁶ Cook, R.E., Ciampa, P.J., Sidat, M., Blevins, M., Burlison, J., Davidson, M.A., Arroz, J.A., Vergara, V.E., Vermund, S.H. and Moon, T.D. (2011) *Predictors of Successful Early Infant Diagnosis of HIV in a Rural District Hospital in Zambezia, Mozambique* JAIDS 2011;56:e104-e109 [C6](#)

⁸⁷ Shen, Y. (2003) *Selection Incentives in a Performance-Based Contracting System* HSR: Health Services Research 38:2 (April 2003) [C6](#)

⁸⁸ LeBeau, D. and Yoder, P.S. (2009) *Alcohol Consumption, Sexual Partners and HIV Transmission in Namibia* DHS Qualitative Research Study 16 [A6](#)

⁸⁹ Murphy, D.A., Sarr, M., Durako, S.J., Moscicki, A-B., Wilson, C.M. and Muenz, L.R. (2003) *Barriers to HAART Adherence among HIV-infected Adolescents* Arch Pediatr Adolesc Med 2003; 157:249-255 [C6](#)

⁹⁰ Biadgilign, S., Deribew, A., Amberbir, A. and Deribe, K. (2009) *Barriers and Facilitators to Antiretroviral Medication Adherence among HIV-infected Paediatric Patients in Ethiopia: A Qualitative Study* Journal of Social Aspects of AIDS Vol 6 No 4 [C6](#)

⁹¹ Groh, K., Audet, C.M., Baptista, A., Sidat, M., Vergara, A., Vermund, S.H. And Moon, T.D. (2011) *Barriers to ART Adherence in Rural Mozambique* BMC Public Health 11:650 [C6](#)

- Qualitative studies using districts as case studies, e.g. on condom use in Indonesia⁹³. In this method, there is a comparative element studying two contiguous districts.
 - Qualitative studies using country case studies, e.g. on programmes for men who have sex with men in Eastern Europe⁹⁴; compulsory drug treatment in Asia⁹⁵; and on the effects of the funding crisis on HIV responses⁹⁶.
 - Costing studies, particularly related to ART^{97,98}.
34. There were five studies involving the use of mathematical modelling. The main use of mathematical models was to estimate the impact of particular interventions, such as harm reduction programmes in Vietnam⁹⁹ and targeted interventions in India¹⁰⁰. Some studies combine modelled data on impact with cost data to produce cost effectiveness studies, e.g. on interventions for sex workers in India¹⁰¹ and for ART in Côte d'Ivoire¹⁰². Modelling studies have also been used to predict the effect of the global financial crisis on ART delivery¹⁰³.
35. There were 13 systematic reviews. Systematic reviews are similar to literature reviews in many ways but usually have a more-focused question, clear search and inclusion criteria and some form of flow chart (see example in Figure 6) showing initial inclusion and progressive exclusion of documents. However, the degree of clarity over this varies from study to study. In a few cases, studies self-classified as literature reviews were re-classified as systematic reviews if they

⁹² Messersmith, L., Bich, T.H., Gruskin, S., Anh, L.V., Tien, T.Q., Hong, K.T., Thai, C.D., Hai, N.T.T., Montagu, D., La, H., Eifler, K., Tuchman, J. and Smith, A. (undated) *Making AIDS Policy Sexy: Evaluation of AIDS Policy Training to Engender a Gendered and Human Rights Response in Vietnam* [C6](#)

⁹³ Spratt, K., Fahir, I. and Surjadaja C. (2007) *Implementing 100% Condom Use Policies in Indonesia: A Case Study of Two Districts in Indonesia* [C6](#)

⁹⁴ International HIV/AIDS Alliance in Ukraine (2010) *Men having Sex with Men in Eastern Europe: Implications of a Hidden HIV Epidemic* [C6](#)

⁹⁵ WHO (2009) *Assessment of Compulsory Treatment of People who Use Drugs in Cambodia, China, Malaysia and Viet Nam: An Application of Selected Human Rights Principles* [C6](#)

⁹⁶ UNAIDS and the World Bank (2009) *Update on the Impact of the Economic Crisis: HIV Prevention and Treatment Programmes* [A6](#)

⁹⁷ Rosen, S., Long, L. and Sanne, I. (undated) *Cost and Cost Effectiveness of ART Delivery* [C6](#)

⁹⁸ Menzies, N.A., Berruti, A.A., Berzon, R., Filler, S., Ferris, R., Ellerbrock, T.V. and Blandford, J.M. (2011) *The Cost of Providing Comprehensive HIV Treatment in PEPFAR-supported Programs* AIDS 2011; 25:1753-1760 [C6](#)

⁹⁹ Vietnam Administration for HIV/AIDS Control, UNAIDS, the World Bank, University of New South Wales and Partnership for Epidemic Analysis (2011) *Evaluation of the Epidemiological Impact of Harm Reduction Programs on HIV in Vietnam* [A7](#)

¹⁰⁰ Kumar, R., Mehendale, S.M., Panda, S., Venkatesh, S., Lakshmi, P.V.M., Kaur, M., Prinja, S., Singh, T., Virdi, N.K., Bahuguna, P., Sharma, A.K., Singh, S., Godbole, S.V., Risbud, A., Manna, B., Thirimugal, V., Roy, T., Sogarwal, R. and Pawar, N.D. (2011) *Impact of Targeted Interventions on Heterosexual Transmission of HIV in India* BMC Public Health 2011, 11:549 [C7](#)

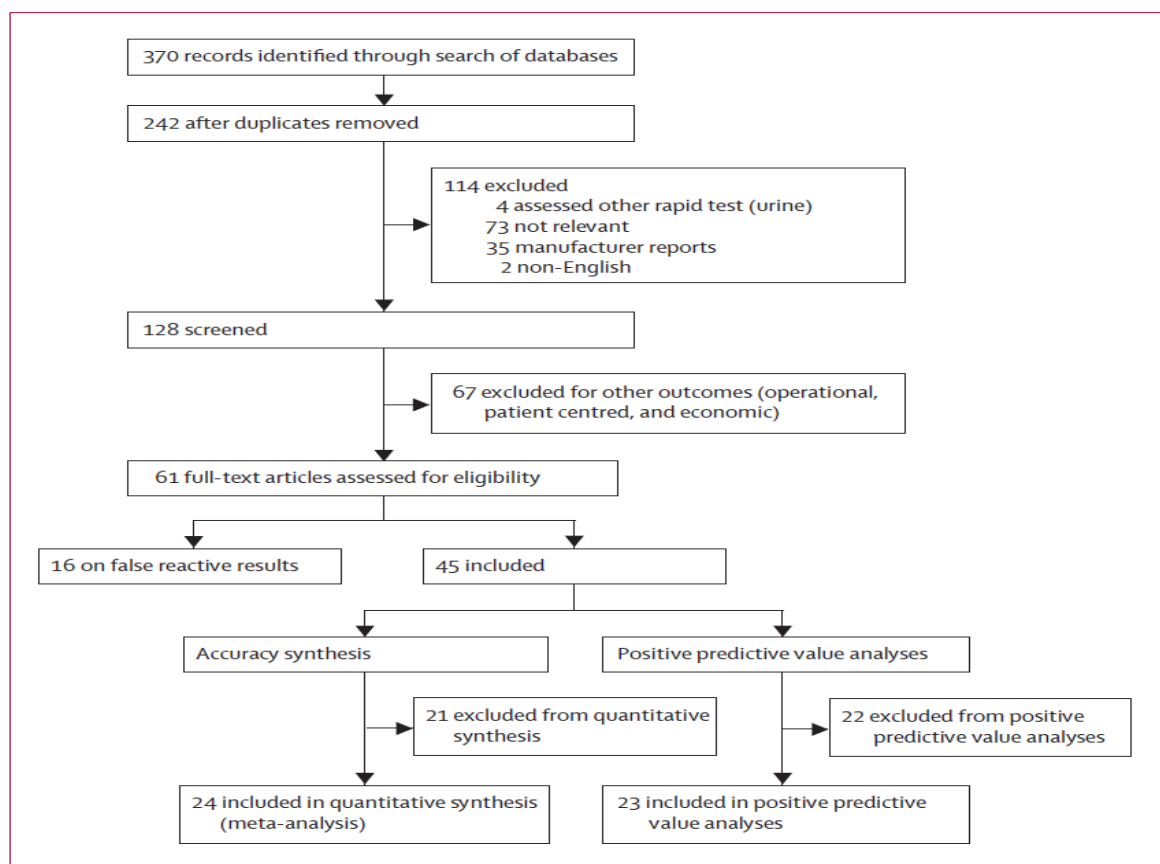
¹⁰¹ Prinja, S., Bahuguna, P., Rudra, S., Gupta, I., Kaur, M., Mehendale, S.M., Chatterjee, S., Panda, S. and Kumar, R. (2011) *Cost Effectiveness of Targeted HIV Prevention Interventions for Female Sex Workers in India* Sex Transm Infect 2011;87:354e361 [C7](#)

¹⁰² Goldie, S.J., Yazdanpanah, Y., Losina, E., Weinstein, M.C., Anglaret, X., Walensky, R.P., Hsu, H.E., Kimmel, A., Holmes, C., Kaplan, J.E. and Freedberg, K.A. (2006) *Cost-Effectiveness of HIV Treatment in Resource-Poor Settings - The Case of Cote d'Ivoire* NEJM Special Article 355(11) [A7](#)

¹⁰³ Barnighausen, T., Bloom, D. and Humair, S. (2009) *The Impact of the Global Financial Crisis on ART in South Africa: The Effect of Feedback* [A7](#)

met these criteria. In biomedical practice, systematic reviews are often considered the highest form of scientific evidence because they are able to bring together evidence from different sources, usually randomised controlled trials. However, in this analysis, systematic reviews have been ranked below controlled trials as levels of evidence. This is largely because in the fields under study it was difficult to define clearly the type of narrow questions usually addressed by biomedical systematic reviews or to identify truly comparable trials. It is of concern that systematic reviews focused on randomised controlled trials may be more appropriate mechanisms for assessing specific biomedical interventions than for assessing large scale social programmes.

Figure 6: Example of flow chart used in systematic review (from Pai et al., 2012¹⁰⁴)



¹⁰⁴ Pai, N.P., Balram, B., Shivkumar, S., Martinez-Cajas, J.L., Claessens, C., Lambert, G., Peeling, R.W. And Joseph, L. (2012) *Head-to-Head Comparison of Accuracy of Rapid Point-of-Care HIV Test with Oral Versus Whole Blood Specimens: A Systematic Review and Meta-Analysis* Lancet Published online January 24, 2012 DOI:10.1016/S1473-3099(11)70368-1 [C8](#)

36. Three of the systematic reviews included were produced by ECDC looking at HIV testing¹⁰⁵, HIV prevention programmes for men who have sex with men¹⁰⁶ and HIV testing and counselling for migrant and ethnic minority populations¹⁰⁷. Strong features of these reviews include inclusion of a wide range of evidence and a system for grading levels of evidence. Other areas covered by systematic reviews included rapid, point-of-care HIV testing¹⁰⁸; HIV disclosure¹⁰⁹; infant feeding practices¹¹⁰; needle and syringe programmes¹¹¹; cell phone SMS for HIV programmes¹¹²; paediatric ART adherence^{113,114}; and task shifting^{115,116}.
37. One survey, conducted by DANIDA in 2008 had many similarities to this current synthesis exercise (see Box 7)¹¹⁷.

¹⁰⁵ ECDC (2010) *HIV Testing: Increasing Uptake and Effectiveness in the European Union: Evidence Synthesis for Guidance on HIV Testing* [A8](#)

¹⁰⁶ ECDC (2009) *Effectiveness of Behavioural and Psychosocial HIV/STI Prevention Interventions for MSM in Europe* [A8](#)

¹⁰⁷ ECDC (2011) *Migrant Health: HIV Testing and Counselling in Migrant Populations and Ethnic Minorities in EU/EEA/EFTA Member States* [A8](#)

¹⁰⁸ Pai, N.P., Balram, B., Shivkumar, S., Martinez-Cajas, J.L., Claessens, C., Lambert, G., Peeling, R.W. And Joseph, L. (2012) *Head-to-Head Comparison of Accuracy of Rapid Point-of-Care HIV Test with Oral Versus Whole Blood Specimens: A Systematic Review and Meta-Analysis* Lancet Published online January 24, 2012 DOI:10.1016/S1473-3099(11)70368-1 [C8](#)

¹⁰⁹ Obermeyer, C.M., Baijal, P. and Pegurri, E. (2011) *Facilitating HIV Disclosure Across Diverse Settings: A Review* American Journal of Public Health Vol 101 No. 6 [A8](#)

¹¹⁰ Chetty, T., Naidu, K.K. and Newell, M.L. (2010) *Systematic Review of HIV-free Survival by Infant Feeding Practices Birth to 18 Months* [C8](#)

¹¹¹ Jones, L., Pickering, L., Sumnall, H., McVeigh, J. and Bellis, M.A. (2008) *A Review of the Effectiveness and Cost-Effectiveness of Needle and Syringe Programmes for Injecting Drug Users* [C8](#)

¹¹² Bahadur, K-C.M. and Murray, P.J. (2010) *Cell Phone SMS for HIV/AIDS in South Africa: A Literature Review* Stud Health Technol Inform. 2010;160(Pt 1):530-4 [A8](#)

¹¹³ Simoni, J.M., Montgomery, A., Martin, E., New, M., Demas, P.A. and Rana, S. (2007) *Adherence to ART for Pediatric HIV Infection: A Qualitative Systematic Review with Recommendations for Research and Clinical Management* Pediatrics 2007; 119:e1371 [C8](#)

¹¹⁴ Vreeman, R.C., Wiehe, S.E., Pearce, E.C. and Nyandiko, W.M. (2008) *A Systematic Review of Pediatric Adherence to ART in Low- and Middle-Income Countries* Pediatric Infectious Diseases Journal Volume 27 Number 8 [C8](#)

¹¹⁵ Callaghan, M., Ford, N. and Schneider, H. (2010) *A Systematic Review of Task Shifting for HIV Treatment and Care in Africa* Human Resources for Health 2010, 8:8 [C8](#)

¹¹⁶ Fulton, B.D., Scheffler, R.M., Sparkes, S.P., Auh, E.Y., Vujicic, M. and Soucat, A. (2011) *Health Workforce Skill Mix and Task Shifting in Low Income Countries: A Review of Recent Evidence* Human Resources for Health 2011, 9:1 [C8](#)

¹¹⁷ Kovsted, J. and Schleimann, F. (2008) *Synthesis of Evaluations of HIV/AIDS Assistance* [C8](#)

Box 7: Synthesis of evaluations of HIV/AIDS assistance: DANIDA, 2008

This study was similar in purpose to this current synthesis exercise and the stocktaking exercise on which it was based, that is, to identify evaluations made by bilateral and multilateral donors of their HIV/AIDS programmes and to assess what the identified evaluations add to the evidence base on which HIV responses are based. In particular, the study sought to identify effective and efficient interventions.

However, the selected method differed markedly from this current exercise. Rather than contacting the agencies directly, as was done in the stocktaking exercise, the evaluators sought to identify evaluations themselves from websites and databases. Criteria for inclusion were that the studies/evaluations should be 'as recent as possible'; focus on but not be restricted to sub-Saharan Africa; seek to include 'innovative' evaluations; represent both bilateral and multilateral organisations; and cover all types of interventions. Initially, 67 evaluations were identified but 29 were excluded through application of these criteria and because they were 'too descriptive or had a strategic rather than an evaluative orientation'. Of the remaining 38 evaluations, 25 related to prevention; nine to treatment (ART); four to 'palliative and opportunistic infections'; seven to mitigation; and nine to cooperation.

It proved difficult using these methods to identify even this small number of evaluations. The authors comment, '*the process of finding the evaluations was not easy. Considerable time and effort was spent to identify the relevant studies*'

38. There were eight studies identified which were considered to be non-randomised controlled trials, that is, these studies included comparison, control or non-intervention groups. However, the decision as to who received the intervention and who did not, was not made randomly. Three different types of non-randomised controlled trial are identified.
39. First, the most common type (n=5) involved comparisons being made between groups/communities that received the intervention and those that did not (see Table 3). Overall, the design of these studies was weak and any conclusions drawn from them should be interpreted with extreme caution.

Table 3: Assessment of evaluations comparing intervention groups with non-intervention groups

Evaluation	No. of groups		Concerns
	Intervention	Comparison	
Evaluation of Bashy Bus, Jamaica ¹¹⁸	4	3	<p>1. Although intervention and comparison groups are compared, no evidence is presented that these are actually comparable.</p> <p>2. These are essentially cluster-based studies. The intervention is applied/not applied on the basis of the cluster. In this situation, it is the number of clusters more than the number of people sampled within each cluster which gives statistical power to any comparisons. This does not seem to be understood in these studies. Sample size is almost certainly too small in all cases to draw valid statistical conclusions.</p> <p>3. Sample size calculations based on the total number of individuals, e.g. 10% are not valid for studies of this nature.</p> <p>4. Issues of randomisation are misunderstood. Although selecting individuals within the cluster randomly for interview is good practice, the main issue with randomisation is as a basis for whether or not a person receives the intervention. This is not the case in any of these studies.</p> <p>5. There are issues about validity of outcome measures, e.g. knowledge as the outcome of training.</p>
Benefits of infant feeding counselling in Kenya and Zambia ¹¹⁹	3	3	
Benefits of community-based activities for PMTCT in Kenya ¹²⁰	5	2	
Evaluation of Nigerian National ART training programme ¹²¹	?	?	
AIM project evaluation ¹²²	3	3	

40. Other approaches were taken by the three other studies included in this group:

- A study of the effect of ART on child nutrition and schooling in Kenya¹²³ compared longitudinal household survey data from the intervention group with cross-sectional data from a representative national survey. An earlier study¹²⁴ from the same authors compared longitudinal household survey data from the intervention group with a random sample of adults in the survey area.

¹¹⁸ Kazaara, J. (undated) *Measuring the Impact of the Bashy Bus HIV Mobile Clinic in Jamaica* [A9](#)

¹¹⁹ Population Council (2003) *Infant Feeding Counselling Within Kenyan and Zambian PMTCT Services: How Well Does It Promote Good Feeding Practices?* [C9](#)

¹²⁰ Population Council (2007) *Community-Based Activities Complement PMTCT Programs in Kenya* [C9](#)

¹²¹ Idigbe, E.O., Odutolu, O., Okonkwo, P., Folayan, M.O., Uwakwe, C.B.R., Audu, R.A., Jolayemi, O.A., Osagbemi, M., (2006) *Evaluation of the Nigerian National ART Training Programme* Journal of Social Aspects of HIV/AIDS Vol. 3 No. 3 [C9](#)

¹²² Blue, R., Wandera, A., Balyaku, A., Turinde, A., Chono, R.O., Walusimbi, R. and Kamukama, R. (2007) *AIM Project Evaluation* [C9](#)

¹²³ Thirimurthy, H., Zivin, J.G. and Goldstein, M. (2007) *AIDS Treatment and Intrahousehold Resource Allocations: Children's Nutrition and Schooling in Kenya* Working Paper No. 105 Center for Global Development [A9](#)

¹²⁴ Thirimurthy, H., Zivin, J.G. and Goldstein, M. (2005) *The Economic Impact of AIDS Treatment: Labour Supply in Western Kenya* [A9](#)

- A laboratory-based study in Tanzania¹²⁵ compared the use of dried-blood spot samples for viral load measurements with the recognised gold standard of plasma assays. As both measures could be applied to all trial participants, there was no need for random allocation to intervention and control groups.
41. There were 18 reports of randomised-controlled trials (see Table 4). These were of two broad types. The first involved randomisation at the individual level. In this approach, individuals were allocated randomly to a particular arm of the trial. The second involved randomisation at the cluster level. In this approach, a particular cluster of individuals were allocated randomly to a particular arm of the trial. A cluster might be a facility of some kind, such as a school, or a defined geographic area, such as a district. Table 4 presents summary data for a number of the identified trials, including:
- The focus of the evaluations
 - The number of individuals in the trial
 - A description of the sites included in the trial
 - A brief description of the different interventions being studied
 - A brief description of the outcome measures. In general, studies of HIV prevention measures need to include a measure of HIV infection as the outcome and not a proxy measure, such as condom use.
 - Whether or not the report reviewed was from a peer-reviewed journal. If a particular report was not published in a peer-reviewed journal, this does not mean that findings of the evaluation have not been published in such a journal, just that no such article was identified for this analysis.
 - Comments, where applicable. In some cases, numerical discrepancies in the report are noted briefly here (see also Figure 7).
42. Finally, during the search for documents, particular attention was given to try to find any documents which captured responses to evaluations, e.g. how recommendations of an evaluation were being or had been implemented. However, almost no examples of such documents were encountered. One example of evaluation follow-up was identified in the form of a management response from UNAIDS to its five year evaluation¹²⁶. However, the tone of this document is not about how the agency will respond to and implement the recommendations of the evaluation but rather contesting some of the evaluation's findings and conclusions.

¹²⁵ Johannessen, A., Garrido, C., Zahonero, N., Sandvik, L., Naman, E., Kivuyo, S.L., Kasubi, M.J., Gundersen, S.G., Bruun, J.N. and De Mendoza, C. (2009) *Dried Blood Spots Perform Well in Viral Load Monitoring of Patients who Receive ART in Rural Tanzania* Clinical Infectious Diseases 2009; 49:976–81 [C9](#)

¹²⁶ UNAIDS (2009) *UNAIDS' Secretariat Response to the Stakeholder Consultation Document on Preliminary Evaluation Findings*

Table 4: Summary of randomised controlled trials

Evaluation Focus	No. of individuals	Sites	Interventions	Outcome measure	Peer-review journal	Comments
INDIVIDUAL-BASED RANDOMISATION						
Use of SMS to promote ART adherence in Kenya ¹²⁷	538	3 clinics	Weekly SMS vs standard care	Self-reported adherence Viral suppression	✓	
HIV prevention among sex workers in Armenia ¹²⁸	120	Yerevan	2 hour intervention from health educator	Condom use	✓	
Pre-exposure prophylaxis ¹²⁹	4758	9 sites in Kenya and Uganda	TDF ¹³⁰ , TDF/FTC ¹³¹ , placebo	HIV transmission	✗	
Cotrimoxazole (CTX) prophylaxis and malaria among HIV exposed but –ve children < 2 years ¹³²	203	Tororo district	CTX to 2 years vs discontinue when cease breastfeeding if HIV -ve	Malaria	✓	Is research question clear?
AL ¹³³ vs DP ¹³⁴ for treatment of	122	Uganda	AL vs DP	Adverse events	✓	

¹²⁷ Lester, R. T., Ritvo, P., Mills, E.J., Kariri, A., Karanja, S., Chung, M.H., Jack, W., Habyarimana, J., Sadatsafavi, M., Najafzadeh, M., Marra, C. A., Estambale, B., Ngugi, E., Ball, T.B., Thabane, L., Gelmon, L.J., Kimani, J., Ackers, M. and Plummer, F.A. (2010) *Effects of a Mobile Phone Short Message Service on ART Adherence in Kenya (WeTel Kenya 1): A Randomised Trial* Lancet 2010; 376:1838-45 [A10](#)

¹²⁸ Markosyan, K., Lang, D.L., Salazar, L.F., DiClemente, R.J., Hardin, J.W., Darbinyan, N., Joseph, J.B. and Khurshudyan, M. (2010) *A Randomized Controlled Trial of an HIV Prevention Intervention for Street-Based Sex Workers in Yerevan, Armenia: Preliminary Evidence of Efficacy* AIDS Behav (2010) 14:530-537 [C10](#)

¹²⁹ University of Washington (2011) *Partners PrEP Study Demonstrates the PrEP Significantly Reduces HIV Risk: Key Messages* [A10](#)

¹³⁰ Tenofovir

¹³¹ Emtricitabine

¹³² Sandison, T.G., Homsy, J., Arinaitwe, E., Wanzira, H., Kakuru, A., Bigira, V., Kalamya, J., Vora, N., Kublin, J., Kamya, M.R., Dorsey, G. and Tappero, J.W. (2011) *Protective Efficacy of Co-trimoxazole Prophylaxis against Malaria in HIV Exposed Children in Rural Uganda: a Randomised Clinical Trial* BMJ 2011:342d1617 [A10](#)

Evaluation Focus	No. of individuals	Sites	Interventions	Outcome measure	Peer-review journal	Comments
malaria in HIV positive children ^{135,136}	351			Effective treatment		
Different methods of monitoring ART ¹³⁷	1094	Uganda	(a) Clinical vs (b) a+CD4 vs (c) b+ viral load	Morbidity and mortality	✓	
CLUSTER-BASED RANDOMISATION						
Cash transfers in Malawi ^{138,139,140}	3821	176 intervention areas	Different amounts; direct to girl vs to household head	HIV infection	×	A different study from Mchinji? ^{141, 142}
Social mobilisation and peer education in Senegal ^{143,144}		52 districts	Traditional methods vs	HIV testing	×	

¹³³ Artemether-lumefantrine

¹³⁴ Dihydroartemisinin-piperaquine

¹³⁵ Katrack, S., Gasasira, A., Arinaitwe, E., Kakuru, A., Wanzira, H., Bigira, V., Sandison, T.G., Homsy, J., Tappero, J.W., Kamya, M.R. and Dorsey, G. (2009) *Safety and Tolerability of Artemether-Lumefantrine versus Dihydroartemisinin-Piperaquine for Malaria in Young HIV-infected and -uninfected Children* Malaria Journal 2009; 8:272 [A10](#)

¹³⁶ Arinaitwe, E., Sandison, T.G., Wanzira, H., Kakuru, A., Homsy, J., Kamya, M.R., Vora, N., Greenhouse, B., Rosenthal, P.J., Tappero, J. and Dorsey, G. (2012) *Artemether-Lumefantrine versus Dihydroartemisinin-Piperaquine for Falciparum Malaria: A Longitudinal, Randomized Trial in Young Ugandan Children* Clinical Infectious Diseases 2009; 49:1629–37 [A10](#)

¹³⁷ Mermin, J., Ekwaru, J.P., Were, W., Degerman, R., Bunnell, R., Kaharuzza, F., Downing, R., Coutinho, A., Solberg, P., Alexander, L.N., Tappero, J., Campbell, J. and Moore, D.M. (2011) *Utility of Routine Viral Load, CD4 Cell Count, and Clinical Monitoring among Adults Receiving ART in Uganda: Randomised Trial* BMJ 2011; 343 d6792 [A10](#)

¹³⁸ Ozler, B. (undated) *Unpacking the Impacts of a Randomized CCT Program in Malawi* [A10](#)

¹³⁹ Anonymous (undated) *A Cash Transfer Program Reduces HIV Infections among Adolescent Girls* [A10](#)

¹⁴⁰ Baird, S., McIntosh, C. and Ozler, B. (2011) *Cash or Condition? Evidence from a Cash Transfer Experiment* [A10](#)

¹⁴¹ Strobbe, F. And Miller, C. (2011) *Cash Transfers in an Epidemic Context: The Interaction of Formal and Informal Support in Rural Malawi* Policy Research Working Paper 5824 [C10](#)

¹⁴² Miller, C., Tsoka, M. and Reichert, K. (2008) *Impact Evaluation Report: External Evaluation of the Mchinji Social Cash Transfer Pilot* [C10](#)

¹⁴³ World Bank (undated) *The Effects of Social Mobilization and Peer Education on Counselling and HIV Testing in Senegal* [A10](#)

Evaluation Focus	No. of individuals	Sites	Interventions	Outcome measure	Peer-review journal	Comments
			peer mentoring vs control			
Education programmes and HIV in Kenya ^{145,146}	70000	328 primary schools	6 different arms (see Figure 7)	Teenage childbearing	×	Some issues with numbers (see Figure 7)
Home-based versus facility-based ART management in Uganda ¹⁴⁷		44 geographical areas	Home care vs facility care	Virological failure	✓	
Evaluation of community response to HIV ¹⁴⁸	See Figure 8					

¹⁴⁴ Arcand, J-L., Sakho, C., Wagner, N. and Diallo, P.A. (2011) *HIV/AIDS Sensitisation and Peer Mentoring: Evidence from a Randomised Experiment in Senegal* [A10](#)

¹⁴⁵ Dupas, P. (2005) *Relative Risks and the Market for Sex: Teenagers, Sugar Daddies and HIV in Kenya* [A10](#)

¹⁴⁶ Duflo, E., Dupas, P., Kremer, M. and Sinei, S. (2006) Education and HIV/AIDS Prevention: Evidence from a Randomised Evaluation in Western Kenya [A10](#)

¹⁴⁷ Jaffar, S., Amuron, B., Foster, S., Birungi, J., Levin, J., Namara, G., Nabiryo, C., Ndembu, N., Kyomuhangi, R., Opio, A., Bunnell, R., Tappero, J.W., Mermin, J., Coutinho, A. and Grosskurth, H. (2009) *Rates of Virological Failure in Patients Treated in a Home-Based Versus a Facility-Based HIV-Care Model in Jinja, Southeast Uganda: A Cluster Randomised Equivalence Trial* Lancet 2009 December 19: 374(9707) 2080-2089 [A10](#)

¹⁴⁸ UK Consortium on AIDS and International Development (2011) *Evaluation of the Community Response to HIV and AIDS: Insights* [A10](#)

Figure 7: Illustration of numerical discrepancy in report of randomised controlled trial

Figure from Duflo et al., 2006: annotated

To summarize, the sample of 328 schools is divided into 6 groups as follows:

SUMMARY OF PROGRAM DESIGN					
Group	Number of Schools	National Program	Teacher training Reinforcement (Spring 2003)	Condom Debate and Essay (Spring 2005)	Reducing the Cost of Education (Spring 2003 and Fall 2004)
1	88	Yes			
2	41	Yes	Yes		
3	42	Yes	Yes	Yes	
4	83	Yes			Yes
5	40	Yes	Yes		Yes
6	40	Yes	Yes	Yes	Yes

Note: the figures in this column total 334

Figure 8: Studies included in evaluation of community response to HIV

Figure from UK Consortium, 2011

Table 1: Country studies: Sampling and design

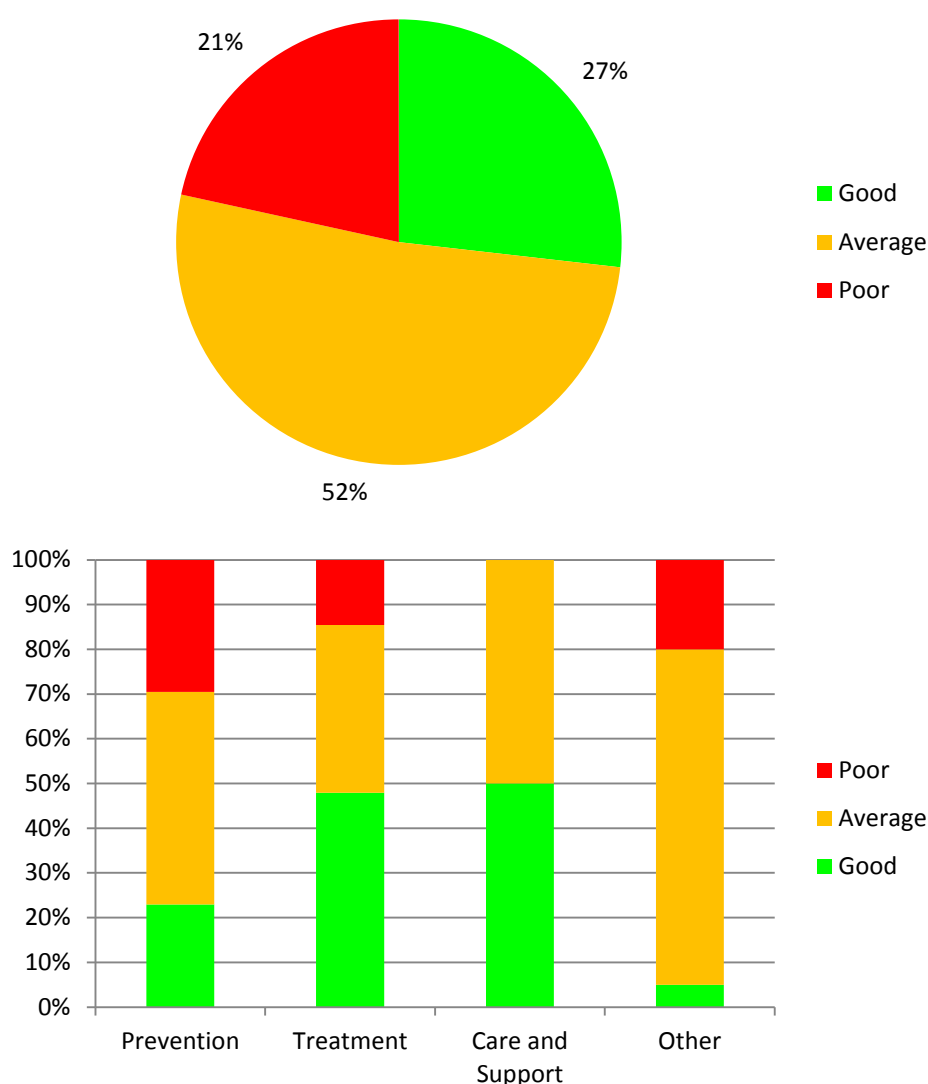
Country	Impact [experimental] (sample size Households)	Impact [analytical]	Outcomes [quasi-exp] (sample size Households)
Burkina Faso	8,496		
South Africa	856		
Kenya			4,500
Nigeria			5,376
India		Over 50,000 female sex workers (FSWs)	
Lesotho		12,718 people	
Senegal		12,739 tested individuals	
Zimbabwe		Cohort of over 10,000 people	

Source: World Bank, Evaluation of the Community Response to HIV and AIDS, 2011.

Quality

43. Overall, more than half (n=79; 52%) of all documents (n=153¹⁴⁹) were considered to be of average quality. More than a quarter (n=41; 27%) were considered to be good and slightly less than a quarter (n=33; 22%) were considered to be poor (see Figure 9). Almost half of all treatment-related documents (n=23, 48%) were classified as good but less than a quarter of prevention-related documents (n=14; 23%) and a very small proportion of documents classified as 'other' (n=2; 5%). Almost one third of prevention-related documents (n=18; 30%) were classified as poor but only one fifth of those classified as 'other' (n=8; 20%) and 15% of treatment-related documents (n=7). Of all documents classified as good, more than half (56%) were treatment-related while of all documents classified as poor, more than half (55%) were prevention-related.

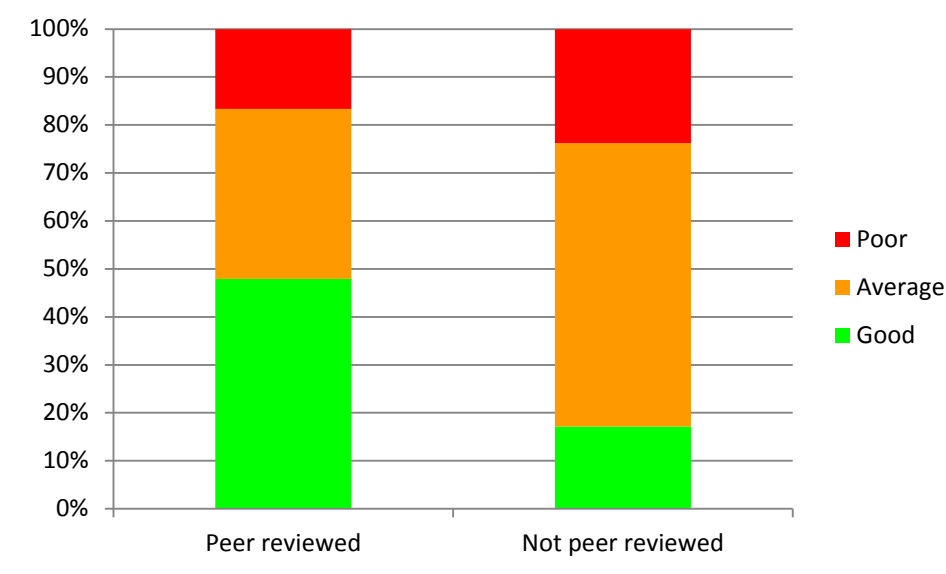
Figure 9: Perceived quality of reviewed documents/studies overall and by thematic area



¹⁴⁹ The one report of evaluation follow-up was excluded from this analysis.

44. Overall, the percentage of reports in peer-reviewed journals considered good was higher (48%) than those in the grey literature considered good (17%). However, the percentage of reports in peer-reviewed journals considered poor was only slightly lower (17%) than those in the grey literature (24%).

Figure 10: Perceived quality of reviewed documents/studies by publication in peer-reviewed journal



Independence

45. According to the OECD DAC principles for the evaluation of development assistance¹⁵⁰, *‘the evaluation process should be impartial and independent in its function from the process concerned with the policy making, the delivery and the management of development assistance.’*
46. Very few of the evaluation reports reviewed discuss the issue of evaluation independence as part of their considerations of method. However, this issue was considered overall in the evaluation stocktake with agencies describing various mechanisms for ensuring evaluation independence (see Box 8).

Box 8: Agency arrangements for ensuring independence of evaluations

As reported to evaluation stocktake (Drew and Peersman, 2011)

This issue of independence is a critical one raised by a number of respondents. Some agencies, e.g. UNODC and the World Bank have Independent Evaluation Units. The UK Government is currently establishing an Independent Commission on AID Impact, which is completely independent of DFID. Agencies draw on a wide range of external evaluation expertise in their work including from private firms and academic institutions. Several agencies, including DANIDA, DFID, GIZ, NORAD and SIDA, explained that they procure evaluation services through an open and competitive tendering process. The World Bank contracts out elements of evaluation work but this is not done fully with external researchers working with the relevant World Bank research team. OGAC conducts its evaluations through other US Government agencies including USAID, CDC, National Institutes of Health, Health Resources and Services Administration and the Department of Defense.

¹⁵⁰ OECD DAC (1991) *Principles for Evaluation of Development Assistance*

47. Where evaluation reports did refer to issues of independence, this included:

- Referring, in general terms, to the evaluation being independent, e.g. in the title 'independent evaluation' or 'independent progress report'.
- Noting that the evaluations had been conducted by independent consultants or an independent panel.
- Noting that the evaluation had included independent research and analysis.
- Explaining that some evaluation processes had been conducted by more than one person independently, particularly assessments of which documents to include and exclude in systematic reviews.
- In many articles published in peer-reviewed journals, a declaration of any competing interests.
- One evaluation which was commissioned specifically because of a perceived need for an independent assessment of the West and Central Africa UNAIDS inter-country team¹⁵¹.

48. The clearest evaluation reports on this topic were those produced by UNODC. For example, the report of their evaluation of effective HIV prevention and care among vulnerable populations in Central Asia and Azerbaijan¹⁵² includes the terms of reference as an annex. These state *'the expert shall act independently in their individual capacity, and not as a representative of the government or organization which appointed them. The independent expert should adhere to the independence and impartiality of the evaluation process discussed in the UNODC guiding principle for evaluation and have no previous experience or involvement with the project.'* Other UNODC reports¹⁵³ contained similar statements. UNODC evaluations are overseen and managed by their Independent Evaluation Unit. At one point, it was disbanded and reconstituted. Evaluation reports^{154,155} produced during that period included the following disclaimer, *'Independent Project Evaluations are scheduled and managed by the project managers and conducted by external independent evaluators. The role of the Independent Evaluation Unit (IEU) in relation to independent project evaluations is one of quality assurance and support throughout the evaluation process, but IEU does not directly participate in or undertake independent project evaluations. It is, however, the responsibility of IEU to respond to the commitment of the United Nations Evaluation Group (UNEG) in professionalizing the evaluation function and promoting a culture of evaluation within UNODC for the purposes of accountability and continuous learning and improvement. Due to the disbandment of the Independent Evaluation Unit (IEU) and the shortage of resources following its reinstitution, the IEU has been limited in its capacity to*

¹⁵¹ Whitcomb, G. (2001) *Evaluation of the UNAIDS Inter-Country Team for Western and Central Africa*

¹⁵² Osipov, K. (2010) *Effective HIV Prevention and Care among Vulnerable Populations in Central Asia and Azerbaijan* [A5](#)

¹⁵³ Drew, R. (2009) *Mid-Term Evaluation of UNODC Project XEEJ20: HIV/AIDS Prevention and Care among IDUs and in Prison Settings in Estonia, Latvia and Lithuania* [A5](#)

¹⁵⁴ Klein, A. (undated) *Final Evaluation RAS/AD/RASI09 Strengthening Comprehensive HIV/AIDS Prevention and Care for Drug Abusers in Custodial and Community Settings* [A5](#)

¹⁵⁵ Curtis, M. (2009) *HIV/AIDS Prevention and Care among IDUs and in Prison Settings in Romania: Mid-Term Evaluation* [A5](#)

perform these functions for independent project evaluations to the degree anticipated. As a result, some independent evaluation reports posted may not be in full compliance with all IEU or UNEG guidelines. However, in order to support a transparent and learning environment, all evaluations received during this period have been posted and as an on-going process, IEU has begun re-implementing quality assurance processes and instituting guidelines for independent project evaluations as of January 2011.'

49. Evaluations conducted by SIDA^{156,157} also contained clear statements on independence, for example, *'this report is part of SIDA Evaluations, a series comprising evaluations of Swedish development assistance. SIDA's other series concerned with evaluations, SIDA Studies in Evaluation, concerns methodologically oriented studies commissioned by SIDA. Both series are administered by the Department for Evaluation and Internal Audit, an independent department reporting directly to SIDA's Board of Directors.'* Similar statements are made in evaluations conducted by the Dutch government, namely, *'all Programme Evaluation reports are submitted to the Ministry of Foreign Affairs and their quality is assessed by the independent Evaluation Unit of this Ministry (IOB), using a standard assessment framework'*¹⁵⁸.
50. There were also a number of examples encountered where principles of independence appeared not to be followed, for example:
 - A study to assess guidelines produced by one agency financed by the same agency¹⁵⁹.
 - A study which claimed to have been conducted by independent consultants when the majority of these had potentially conflictual organisational affiliations¹⁶⁰.
 - Studies which specifically selected participatory forms of evaluation^{161,162}. In one of these studies, in particular, the conclusions were phrased as glowing praise (see Box 9). It is unclear if this would have been the case had the evaluation been more independent.
 - One contractor conducted a mid-term review, re-designed the programme and then conducted another review¹⁶³.

Box 9: Glowing praise of a project from a participatory evaluation¹⁶²

The review team was deeply impressed by the STRIVE project, which it believes is an extremely important means of testing the assumptions underlying many child-centered interventions. The project has vitally important contributions to make in supporting the development and demonstration of effective, replicable responses that can scale up an effective, collective national response to children at risk. It is particularly timely, if not overdue, in the context of Zimbabwe's extreme levels of child vulnerability. The team was also struck by the professionalism and openness of the CRS/STRIVE team. The team was humbled by the obvious dedication of the staff and volunteers associated with the sub-grantees and the projects visited. Given the extraordinary challenges facing the project – which certainly could not have been fully foreseen at the time it was designed – the review team found it admirable that the CRS/STRIVE staff and sub-grantees have accomplished as much as they have. The mid-term review process itself was unusual – perhaps unprecedented – and the team was conscious that only an extraordinarily committed organization would voluntarily submit itself to this kind of scrutiny. The members of the review team were deeply honored to have had the opportunity to learn from all those involved in STRIVE, and hope that the ideas on these pages are able to repay, in some measure, the courage and hard work of this impressive group of individuals.

51. In addition, the DANIDA synthesis of HIV evaluations¹⁶⁴ was critical of country-based reporting mechanisms, such as for UNGASS, on the basis that they *'rarely provide evidence for the efficiency of specific interventions and are by their nature not independent sources of assessment.'*

OECD DAC criteria

52. The OECD DAC principles for the evaluation of development assistance¹⁶⁵ state that the purpose of evaluation is *'to determine the relevance and fulfilment of objectives, developmental efficiency, effectiveness, impact and sustainability.'* These issues have become known as OECD DAC evaluation criteria¹⁶⁶.
53. Two studies referred to the OECD DAC criteria explicitly. An evaluation of UNICEF's SIDA-funded child protection/trafficking programme in West Africa¹⁶⁷ commented, *'this study uses both UNICEF's evaluation standards and evaluation criteria which are the OECD DAC key criteria for evaluating development assistance, namely: relevance; impact; effectiveness; sustainability; and efficiency. However, the efficiency criteria will only be examined anecdotally as efficiency analyses such as cost-benefit, cost-effectiveness and cost-minimization are not part of the scope of this evaluation. The evaluation criteria underpin the study but are not always explicitly referred to in the document.'* An evaluation of the work of HIVOS¹⁶⁸ explicitly selected two of the OECD DAC criteria – effectiveness and sustainability – on which to focus.
54. One study¹⁶⁹ was structured around four of five UNAIDS best practice criteria¹⁷⁰ - effectiveness, relevance, efficiency and sustainability.
55. Several of the reports mentioned some or all of the criteria very explicitly without directly referring to OECD DAC. For example:

Based on the epidemiological context of the Philippines, the overall PMTCT strategy was analyzed for its likelihood to have an impact on the epidemic, given the accessibility, acceptability, sustainability, (cost-) effectiveness and appropriateness of the interventions¹⁷¹.

The primary purpose of the evaluation is to assess the relevance, effectiveness and efficiency of the UNAIDS West and Central Africa ICT¹⁷².

¹⁶⁴ Kovsted, J. and Schleimann, F. (2008) *Synthesis of Evaluations of HIV/AIDS Assistance* [C8](#)

¹⁶⁵ OECD DAC (1991) *Principles for Evaluation of Development Assistance*

¹⁶⁶ See http://www.oecd.org/document/22/0,2340,en_2649_34435_2086550_1_1_1_1,00.html

¹⁶⁷ FAFO (undated) *Evaluation of UNICEF's SIDA-funded Child Protection/Trafficking Program in West Africa* [A5](#)

¹⁶⁸ Phlix, G., Aantjes, C., Jurgens, E., Motihar, R. and Lopez, R. (2010) *Evaluation of the HIV and AIDS Program Implemented by HIVOS in the Period 2000-2009* [C5](#)

¹⁶⁹ UNAIDS and Ministry of Public Health (2000) *Evaluation of the 100% Condom Programme in Thailand* [C5](#)

¹⁷⁰ These are very similar to the OECD DAC evaluation criteria except that ethical soundness is substituted for impact. See http://data.unaids.org/publications/IRC-pub02/jc-summbook1-1_en.pdf

¹⁷¹ Belimac, J.G., Faldas, R., Nadoll, M., Castro, P. and Salva, M. (2008) *Review of the Pilot Phase of PMTCT: Davao Medical Center* [A5](#)

¹⁷² Whitcomb, G. (2001) *Evaluation of the UNAIDS Inter-Country Team for Western and Central Africa* [A5](#)

At the same time, after years of increasing funding until 2008, there is now an acknowledged need to understand better which community responses are most effective, efficient, and sustainable and how such responses can best complement the actions of governments and other actors. Robust data are needed. The primary objective of this effort is to build a more robust pool of evidence on the impact and added value of community-based activities and programs in a cluster of countries, with a strong concentration on the Sub-Saharan African Region¹⁷³.

56. A few studies used the OECD DAC criteria as a structure for their report. These included several UNODC reports^{174,175}. At least one of these used the DAC criteria to structure its summary table (see Figure 11)¹⁷⁶.

¹⁷³ Rodriguez-Garcia, R., Bonnel, R., N'Jie, N., Olivier, J., Pascual, F.B. and Wodon, Q. (2011) *Analyzing Community Responses to HIV and AIDS: Operational Framework and Typology Policy Research Working Paper 5532* [A2](#)

¹⁷⁴ Osipov, K. and Gorshkova, I.D. (2011) *Scaling-up and Increasing Access to HIV Prevention and Care Services among Injecting Drug Users and in Prisons of the Russian Federation (2006-2011)* [B5](#)

¹⁷⁵ Redonnet, B. (2011) *HIV/AIDS Prevention and Care among Injecting Drug Users and in Prison Settings in Estonia, Latvia and Lithuania: Final Evaluation Report* [B5](#)

¹⁷⁶ Van der Gouwe, D. (2011) *HIV/AIDS Prevention and Care among Injecting Drug Users and in Prison Settings in Romania: Final Evaluation* [B5](#)

Figure 11: Summary matrix structured around OECD DAC evaluation criteria (from Van der Gouwe, 2011)

Summary matrix of findings, supporting evidences and recommendations

Themes	Key findings	Supporting evidences	Recommendations
I. Overall	<p>1. Project has met the set ambitious aim: developing HIV services.</p> <p>2. Project was pivotal in development of all three objectives: increase access to services in community and in prison settings, create supportive environment and enhancing sustainability, and generate and disseminate relevant data and information.</p> <p>3. Some activities carried out by the project should be considered best practice.</p>	<p>Logical Framework analysis ticks all the boxes. The progress towards the achievement of objectives was further documented in various UNODC reports.</p> <p>All consulted experts (national agencies, NGOs, beneficiaries as well as not directly involved organizations) unanimously praised project achievements and outcomes.</p> <p>Beneficiaries expressed high level of satisfaction with the services.</p>	<p>1. <i>Recommended to all implementation partners:</i> Support HIV & health response to develop in next stage, among which: zero new infections with increased coverage in both community and in prison settings, and access to services in prison settings, and addressing new trends in drug use leading to different approaches and skills</p> <p>2. <i>Recommended to UNODC Headquarters:</i> Best practice. Use the methods, models and expertise used in this project in other countries.</p>
II. Relevance	<p>1. Project is fully in line with national HIV priorities and international guidelines on effective responses.</p> <p>The project directly addressed some of the basic needs of IDU in community and in prison settings that were lacking prior to the project.</p> <p>2. Recent issues (documented by UNODC through behavioural surveillance surveys) regarding HIV epidemiological risks due to intravenous use of legal highs¹ are partly/insufficient addressed.</p>	<p>National HIV/AIDS Strategy; National Drug Strategy & National Drug Action Plan explicitly supportive of harm reduction interventions</p> <p>Responses aim at reducing epidemic at early stage: focus most effective most-at-risk-populations.</p> <p>Especially the policies and services in prisons are recognised as of extraordinary significance.</p> <p>Current services do not cover needs of legal highs users. The situation outside Bucharest is even more unclear.</p>	<p>3. <i>Recommended to ANA/ ANP/ NGOs:</i> Mainstreaming and scale-up of services in order to meet the desired coverage and access.</p> <p>4. <i>Recommended to ANA/ANP/ NGOs:</i> Address gaps in existing service provision.</p> <p>5. <i>Recommended to ANA/ANP/ NGOs:</i> Increase efforts to address HIV risk behavior. New campaign on HIV awareness, syringe exchange, cleaning and disposal.</p>
III. Effectiveness	<p>1. Project has delivered beyond planning and expectations: all activities are delivered, all three objectives are met and the project managed to develop additional activities to ensure sustainability.</p>	<p>All planned activities delivered timely.</p> <p>Local technical capacity and (current and future) ownership by the implementing partners.</p> <p>Range of governmental agencies</p>	<p>6. <i>Recommended to UNODC Headquarters:</i> Methods of working should be considered example of best practice: prison work, catalysing approach, efficient resourcing;</p> <p>7. <i>Recommended to ANA:</i></p>

Themes	Key findings	Supporting evidences	Recommendations
	<p>2. Project implementation combined well-chosen design and effective working methods ('straight-forward when possible, flexible when needed')</p>	<p>(Justice, Interior) has taken up crucial roles in implementation and overall support.</p> <p>Limited level of involvement of Ministry of Health did not affect planned policy development and service delivery.</p>	<p>Coordinate on-going collaboration between implementation partners; take over most of UNODC's tasks, including maintaining and expanding the network; invest in long-term advocacy to make MoH owner</p>
IV. Efficiency	<p>Project delivered the planned activities timely and efficient.</p>	<p>Majority of recommendations from Mid-term evaluation followed-up.</p> <p>UNODC and partners managed to generate (in-kind) private and public support or funding.</p> <p>No major changes in allocated and spent budget</p>	<p>8. <i>Recommended to UNODC Headquarters:</i> Describe lessons learned in efficiency (described in chapter IV) as model of good practice and example of effective implementation and efficient use of resources.</p>
V. Impact	<p>1. The number of HIV services for IDU in Bucharest has significantly increased.</p> <p>2. Several impact constraining issues were identified, such as high HIV risk behaviour, stigmatization of IDU hampering access to services, esp. in prisons, limitations in coverage.</p> <p>3. Unknown if NSP have adequately contributed to decreasing risk behavior.</p>	<p>Project activities have met internationally agreed effective targets on coverage.</p> <p>Issues that remain to be solved include: needle sharing rates high, and even increasing, and the return rates of syringe are uncommonly low and, combined with high sharing rates, may even fuel risky situations in IDU communities.</p>	<p>9. <i>Recommended to all partners:</i> Continue involvement, but bring it to a next level;</p> <p>10. <i>Recommended to ANA/RHRN/ HIV/AIDS Centre:</i> carry out campaign to increase HIV awareness among IDU.</p> <p>11. <i>Recommended to ANA/ANP/ NGOs:</i> On-going training of prison staff, service providers and other stakeholders, as well as judges</p>
VI. Sustainability	<p>1. Majority of project activities will be continued after duration of the UNODC project. Most of the services are sustained for at least next few years.</p> <p>2. Global economic turmoil and related national austerity have not (yet) affected HIV service delivery.</p>	<p>The applied HIV approach is embedded in policy and legislative framework.</p> <p>UNODC project activities taken over by national government and NGOs</p> <p>Governmental ownership established in Ministry of Justice and Ministry of Interior.</p>	<p>12. <i>Recommended to ANA/NGOs:</i> Long-term advocacy focusing on long term sustainability of current services, and expansion of these services according to the needs of the beneficiaries.</p>
VII. Partnership	<p>UNODC developed a range of (new) partnerships, networks and collaborations in Romania.</p>	<p>UNODC created national ownerships by facilitating structural meetings with main stakeholders.</p> <p>Project has catalysed a range of new partnerships with government and civil society organisations.</p>	<p>13. <i>Recommended to UN Headquarters/RPOSEE:</i> The networking capacities of the UNODC team in Romania should be considered best practice by UN bodies.</p>

57. An evaluation of the Partnership on HIV and Mobility in Southern Africa¹⁷⁷ included a table (see Figure 12) which examined the extent to which particular elements of the partnership fulfilled the different DAC criteria.

Figure 12: Extent to which parts of the Partnership on HIV and Mobility in Southern Africa reflect different DAC criteria (from Lee, 2010)

	ADVOCACY	RESEARCH	REG. COOPERATION	PILOT PROJECTS
Relevance	Strong	Moderate	Strong	Moderate
Effectiveness	Strong	Moderate	Strong	Moderate
Efficiency	Moderate	Moderate	Strong	Moderate
Sustainability	Strong	Moderate	Strong	Mixed
Impact	Strong	Moderate	Moderate	Local-mixed Regional-weak

58. An evaluation of the Clinton HIV/AIDS Initiative in Indonesia¹⁷⁸ included a ratings matrix which assessed performance against specified AusAID evaluation criteria (see Figure 13). These criteria included four of the five OECD criteria¹⁷⁹. Rating was done using a numerical score and a narrative explanation.
59. Most of the reviewed reports were considered to have some focus on assessing effectiveness (n=126; 82%) and impact (n=98; 64%). Half were considered to have a focus on assessing sustainability (n=76; 50%). Fewer were considered to have a focus on either relevance (n=59; 39%) or efficiency (n=54; 35%) (see Figure 14).
60. There were a few studies which had efficiency as their central focus, e.g. two studies on task shifting^{180,181}.
61. It should be noted that many of the studies reviewed defined impact quite loosely. Many of these studies would not be considered rigorous impact evaluations, i.e. in terms of having a clear counterfactual. However, there were some rigorous impact evaluations included in the data set. One of these¹⁸² concluded, *'our study shows that rigorous impact evaluations of HIV/AIDS sensitisation campaigns are possible, can be implemented relatively easily, and can yield results within a reasonable time frame (one quarter in our case).'*

¹⁷⁷ Lee, T. (2010) *PHAMSA II Evaluation Report* [B5](#)

¹⁷⁸ IPR Team (2009) *Independent Progress Report: Clinton HIV/AIDS Initiative in Indonesia* [C5](#)

¹⁷⁹ Relevance, effectiveness, efficiency and sustainability. Although impact was included in the terms of reference, it was excluded from the ratings matrix.

¹⁸⁰ Callaghan, M., Ford, N. and Schneider, H. (2010) *A Systematic Review of Task Shifting for HIV Treatment and Care in Africa* Human Resources for Health 2010, 8:8 [C8](#)

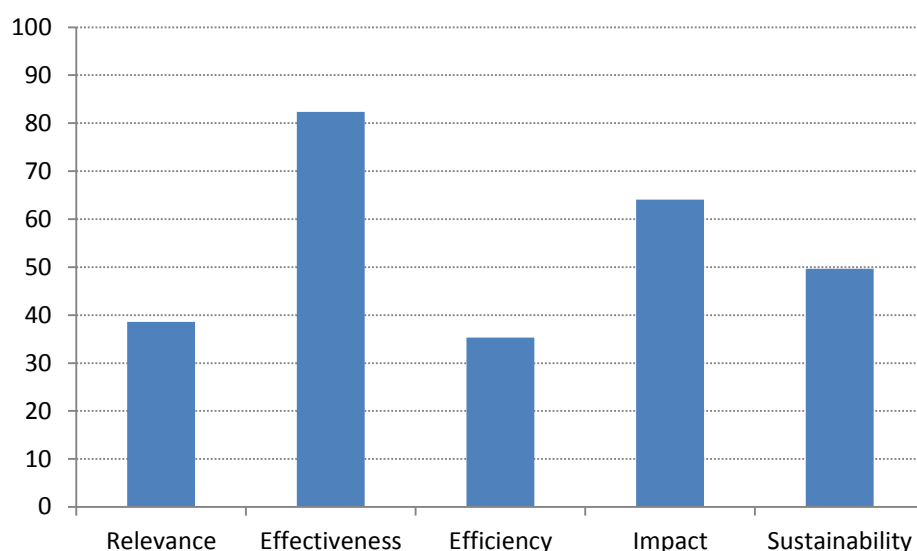
¹⁸¹ Fulton, B.D., Scheffler, R.M., Sparkes, S.P., Auh, E.Y., Vujicic, M. and Soucat, A. (2011) *Health Workforce Skill Mix and Task Shifting in Low Income Countries: A Review of Recent Evidence* Human Resources for Health 2011, 9:1 [C8](#)

¹⁸² Arcand, J-L., Sakho, C., Wagner, N. and Diallo, P.A. (2011) *HIV/AIDS Sensitisation and Peer Mentoring: Evidence from a Randomised Experiment in Senegal* [A10](#)

Figure 13: Ratings of the Clinton HIV/AIDS Initiative in Indonesia against four of the OECD DAC evaluation criteria (from IPR Team, 2009)

Criteria	/6	Explanation	
Relevance	5	The CHAI program focus aligns well with the National HIV Strategy, Papua/PapuaBarat Provincial HIV Strategies, AusAID International HIV Strategy and Country Strategy, and AIPH priorities. The supply chain orientation to systems strengthening is supported by AusAID and DepKes policy. The emphasis on Papua is consistent with National Strategy and KPA priorities. The focus areas for labs and paediatrics reflect gaps identified by 2007 DepKes/WHO assessment. The pediatric work requires closer alignment to national and provincial plans - counterparts do not consistently identify paediatric treatment as a priority.	
Effectiveness	4	Lack of clarity of objectives. Supply chain activities are achieving intended outcomes. Contributions to Global Fund planning has been highly strategic. Progress in labs and paediatrics is patchy and inconsistent. The Rural Initiative is in its infancy and gains (e.g. clinical mentoring) are fragile due to internal and external factors.	
Efficiency	3	Expat salaries are low, however staff turnover has led to extra costs. It is unclear whether value for money has been a factor in CHAI's choice of partners (QASI, Roche, NRL). Insufficient budget information is provided by CHAI's reporting. The majority of budget allocation under each component were for administration, staffing and overhead costs, rather than for programming.	
Sustainability	3	Inadequate joint GoI-CHAI forward planning to address transfer of skills and responsibilities to GoI partners. Requires more effective use of local staff in key roles. Sustainability will be stronger in PSM with Global Fund support for secondments than in other areas.	
Gender Equality	2	Lack of analysis or planned response to gender inequalities relevant to testing, care and treatment, particularly the status of Papuan women. Technical monitoring data is not sex disaggregated.	
Monitoring & Evaluation	4	The M&E matrix has been developed with support of an M&E adviser. The matrix needs to be complemented by a detailed plan that specifies how, when and by whom, data will be analysed and utilised. It should also address how CHAI M&E integrates with GoI M&E so as to build GoI M&E capacity in Papua and nationally.	
Analysis & Learning	3.5	The Papua assessments were well conducted. Analysis of PSM is very good. Technical rigour in other areas has been questioned. Staff turnover has meant learning has been lost / slow. Ongoing analysis and learning needs to be a higher priority for staff. Lessons learned are captured (e.g. in the Program Brief) but could have a broader focus on relationships and planning rather than only operational issues. Lack of clear work-plans and established deliverables has limited the opportunity for critical analysis.	
Satisfactory		Less than satisfactory	
6	Very high quality	3	Less than adequate quality
5	Good quality	2	Poor quality
4	Adequate quality	1	Very poor quality

Figure 14: Percentage of reports (n=153) reflecting different DAC criteria



62. It should be noted that many of the studies reviewed defined impact quite loosely. Many of these studies would not be considered rigorous impact evaluations, i.e. in terms of having a clear counterfactual. However, there were some rigorous impact evaluations included in the data set. One of these¹⁸³ concluded, *'our study shows that rigorous impact evaluations of HIV/AIDS sensitisation campaigns are possible, can be implemented relatively easily, and can yield results within a reasonable time frame (one quarter in our case).'*

Existence of recommendations

63. The OECD DAC principles for the evaluation of development assistance¹⁸⁴ expect recommendations to be one of the elements of an evaluation report. They also expect that these should be clearly distinguished from findings.

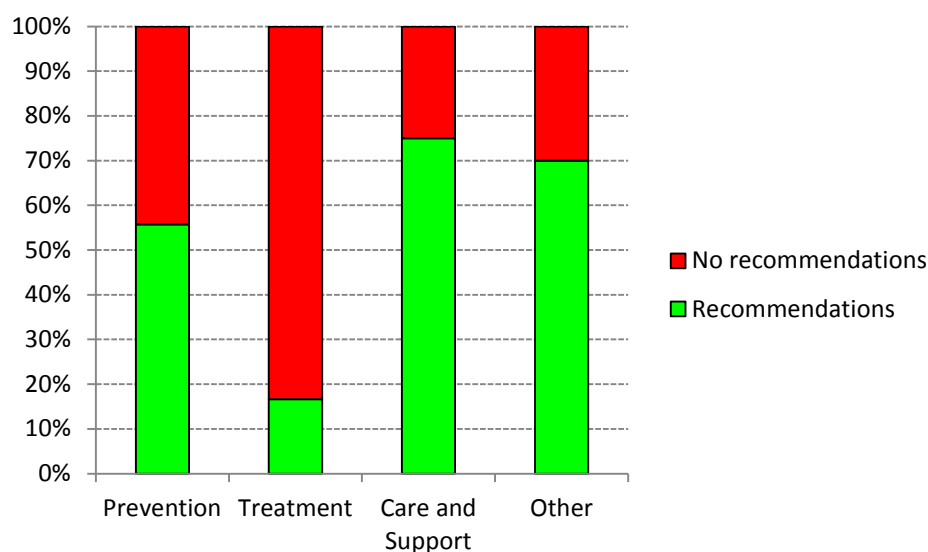
64. However, overall of the reports reviewed (n=153), less than half (n=73; 48%) were considered to contain recommendations. In most cases (n=60; 82%), where there were recommendations, they were clearly labelled as such and grouped together, e.g. in a summary or at the end of the report. However, in some cases (n=13; 18%), they were called something other than recommendations or were scattered through the report.

65. More than half (n=34; 56%) of prevention evaluation reports contained recommendations, as did almost three quarters (n=28; 70%) of 'other' evaluation reports. However, less than a quarter (n=8; 17%) of treatment evaluation reports contained recommendations (see Figure 15).

¹⁸³ Arcand, J-L., Sakho, C., Wagner, N. and Diallo, P.A. (2011) *HIV/AIDS Sensitisation and Peer Mentoring: Evidence from a Randomised Experiment in Senegal* [A10](#)

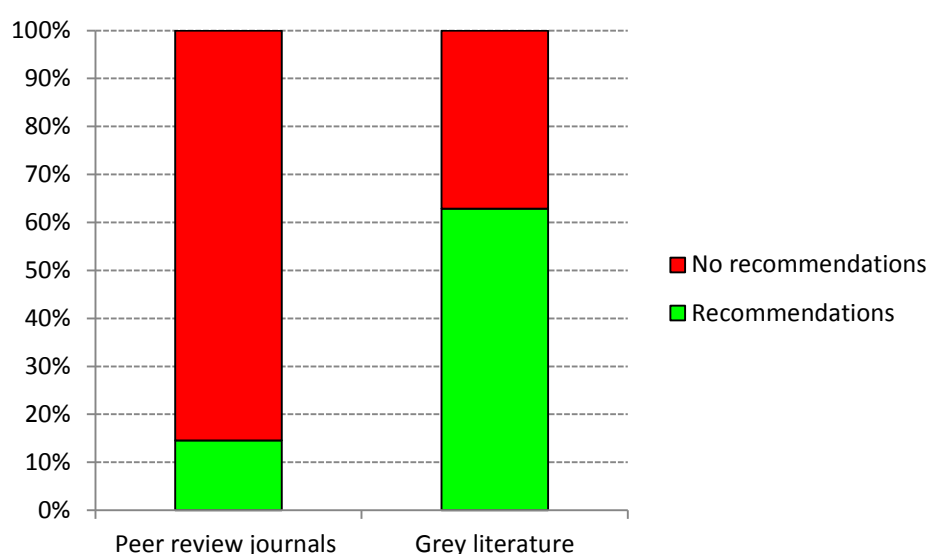
¹⁸⁴ OECD DAC (1991) *Principles for Evaluation of Development Assistance*

Figure 15: Percentage of reports (n=153) with recommendations by thematic area



66. Almost two thirds (n=66; 63%) of the evaluation reports in the grey literature (n=105) contained recommendations. However, only 15% (n=7) of those published in peer-reviewed journals contained recommendations (see Figure 16). Examples of peer-reviewed articles which did include recommendations are given in Box 10.

Figure 16: Percentage of reports (n=153) with recommendations by type of publication



Box 10: Examples of articles in peer-reviewed journals with recommendations

In 2007, a systematic review of paediatric ART adherenceⁱ published in *Pediatrics* contained recommendations for research and clinical management.

In 2008, a systematic review of paediatric ART adherence in low- and middle-income countriesⁱⁱ published in *Pediatric Infectious Diseases Journal* also contained recommendations for practice and research.

In 2006, a non-randomised controlled trial of the Nigerian national ART training programmeⁱⁱⁱ published in the *Journal of Social Aspects of HIV/AIDS* included recommendations.

ⁱ Simoni, J.M., Montgomery, A., Martin, E., New, M., Demas, P.A. and Rana, S. (2007) *Adherence to ART for Pediatric HIV Infection: A Qualitative Systematic Review with Recommendations for Research and Clinical Management* *Pediatrics* 2007; 119:e1371 [C8](#)

ⁱⁱ Vreeman, R.C., Wiehe, S.E., Pearce, E.C. and Nyandiko, W.M. (2008) *A Systematic Review of Pediatric Adherence to ART in Low- and Middle-Income Countries* *Pediatric Infectious Diseases Journal* Volume 27 Number 8 [C8](#)

ⁱⁱⁱ Idigbe, E.O., Odutolu, O., Okonkwo, P., Folayan, M.O., Uwakwe, C.B.R., Audu, R.A., Jolayemi, O.A., Osagbemi, M., (2006) *Evaluation of the Nigerian National ART Training Programme* *Journal of Social Aspects of HIV/AIDS* Vol. 3 No. 3 [C9](#)

67. Almost all (n=36; 82%) 'classic' programme/project evaluations included recommendations. Less than one quarter of evaluations based on randomised controlled trials (n=4; 22%), mathematical modelling (n=1; 20%) or non-controlled/qualitative studies (n=10; 24%) contained recommendations (see Figure 17).
68. Very few examples were found of evaluation reports which contained management responses to the evaluation, in general, and its recommendations, in particular. One example was encountered of a stand-alone management response from the agency to an evaluation¹⁸⁵. However, this was not really an assessment of how the agency would respond to and implement the evaluation's recommendations. Rather, it appeared to be contesting the evaluation's findings and conclusions and was somewhat defensive in tone. An evaluation of UNODC technical assistance to Afghanistan¹⁸⁶ did contain a section on the management response which was fairly positive in tone.
69. Also, very few examples were found of evaluations which considered progress against recommendations of a previous evaluation. An evaluation of UNICEF-supported projects at Chikankata in 2002¹⁸⁷ did refer back to the recommendations of an earlier evaluation in 1997. A country visit to Indonesia¹⁸⁸ conducted as part of an overall evaluation of UNAIDS did assess, in the form of

¹⁸⁵ UNAIDS (2009) *UNAIDS' Secretariat Response to the Stakeholder Consultation Document on Preliminary Evaluation Findings*

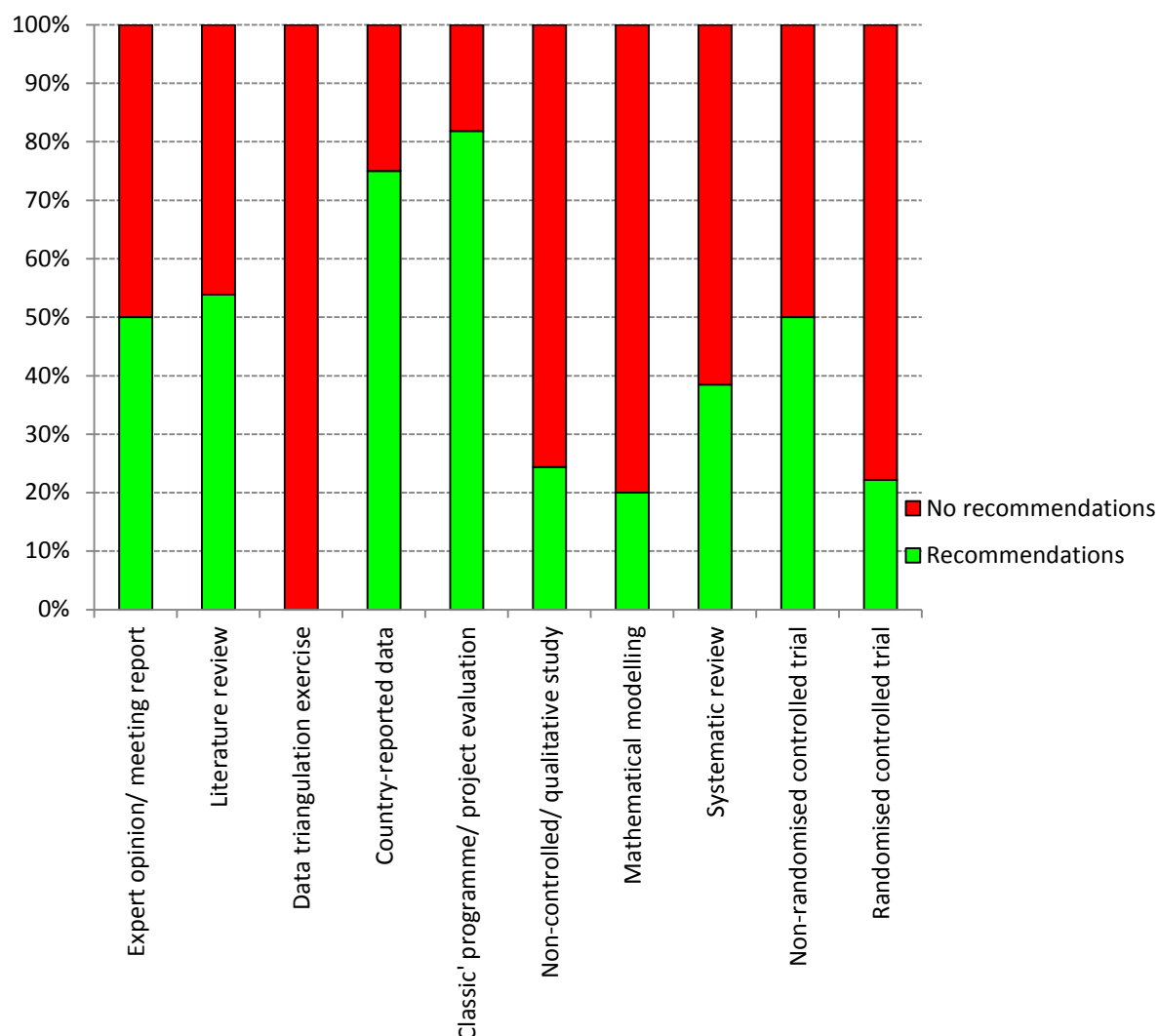
¹⁸⁶ UNODC (2008) *Thematic Evaluation of the Technical Assistance Provided to Afghanistan by the UNODC: Consolidated Evaluation Report* [A5](#)

¹⁸⁷ Mulenga, S. (2002) *Report on the Evaluation of the UNICEF Supported Chikankata CBOSP and OVC Training Projects* [A5](#)

¹⁸⁸ Jansen, P.L., Petersen, G. and Darmawi, V. (2008) *UNAIDS Second Independent Evaluation: 2002-2008 Country Visit to Indonesia: Summary Report* [C5](#)

an annex, progress made in implementing recommendations of an earlier evaluation.

Figure 17: Percentage of reports (n=153) with recommendations by type of study



Summary findings of the evaluation studies

HIV prevention

70. Documents reviewed included one systematic review of evaluations of HIV/AIDS assistance, conducted by DANIDA in 2008 (see Box 7)¹⁸⁹. Evidence from this study related particularly to HIV prevention topics and is summarised in Table 5. The review drew some important conclusions about the nature of HIV-related prevention evaluations supported by donors, namely:

¹⁸⁹ Kovsted, J. and Schleimann, F. (2008) *Synthesis of Evaluations of HIV/AIDS Assistance* [C8](#). This synthesis covered a range of thematic areas and was classified as 'other'.

- Almost all were based on a combination of desk reviews of the available documentation, case studies/field visits and interviews with key stakeholders.
- Donor-supported evaluations usually did not establish the baseline prior to intervention
- Donor-supported evaluations usually did not collect primary data
- Donor-supported evaluations usually did not include a control group to assess programme effects
- There were very few examples of peer-reviewed papers/processes. Where these were available, they largely focused on small scale projects and did not provide sufficient guide for scaling up efforts
- Donor-supported evaluations usually failed to distinguish between whether programme failure resulted from faulty design or poor implementation
- Donor-supported evaluations usually relied extensively and excessively on use of case stories
- Donor-supported evaluations rarely, if ever, had any focus on cost, cost effectiveness and sustainability.
- Donor-supported evaluations usually rarely, if ever, attempt to link programme outputs to outcomes and impact.
- Donor-supported evaluations tend to focus on very broad national indicators. Although useful for documenting achievements in an easily communicable manner, this approach 'makes it virtually impossible to assess and improve the effectiveness of the mix and size of the programmes implemented.

Table 5: Evidence from HIV-related evaluations as assessed by DANIDA synthesis in 2008: HIV prevention¹⁸⁹

Thematic Area	From donor-supported evaluations reviewed	From other literature
Information campaigns	No evidence beyond outputs, that is they increase knowledge	Systematic review in 2006 'discouraging'. Limited information on outcome or impact – due to weak or flawed design. No evidence on cost effectiveness.
School-based prevention	UNICEF summary evaluation focused on outputs but said little about changes in attitudes and behaviour	Almost all programmes demonstrate improvements in knowledge, some a change in attitudes and a few change in behaviour. More effect among younger children and those not yet sexually active. Randomised evaluation in 2006 showed no effect of teacher-based training on knowledge, attitudes, behaviour or rates of teenage pregnancy. But reducing cost of education reduced school drop out, teen marriage and childbearing. No evidence on cost effectiveness.
Out of school youth	UNICEF – no solid base for comparing results; similar from UNAIDS	
Condom marketing		Similar to evidence for information campaigns. It is known that condoms are effective but programme data largely limited to number of condoms distributed.
Treatment of STIs	Not covered	Conflicting results from Mwanza and Rakai. Consensus appears to be that treatment of other sexually transmitted diseases under some circumstances can be part of an effective preventive effort.
VCT	No contribution – beyond qualitative assessment and/or measurement of outputs	The effectiveness of interventions found to increase where information is supplemented by skill building and counselling (such as use of condoms and safe sex negotiations), where theory guides design, where several delivery methods are used and where context and need for sustainability is taken into account. These findings are, however, not directly applicable to a developing country context given that the lack of and/or deficiencies of the health infrastructure in these countries pose a significant barrier. A randomised trial conducted in Tanzania, Kenya and Trinidad measured changes in self-reported sexual behaviour following counselling. The results indicate that voluntary counselling and testing is most effective when offered to couples and in high-prevalence settings. The overall assessment emerging from the controlled trials is that VCT appear to be able to reduce risky sexual behaviour among recipients, but that the effects of stigma and deficient infrastructure on treatment seeking behaviour is unknown.
Male circumcision		Highly-publicised clinical trials – controlled trials in Rakai and Kisumu showing HIV-1 incidence lower in circumcised group.
PMTCT	Most evaluations, e.g. UNICEF review, describe outputs without baseline or control group. No analyses of cost or cost effectiveness. One exception was USAID evaluation in South Africa. This included a control group and showed that those receiving the services experienced greater psychosocial well-being, had greater use of PMTCT services, had better PMTCT outcomes and were linked to health facilities for a longer period.	Established value of ARVs in PMTCT stated. One study identified which emphasises the needs for different steps to be followed for PMTCT. One study of cost and cost effectiveness identified which reported that provision of ARVs for PMTCT was more cost effective than provision of infant formula.

Testing, counselling and disclosure

71. The documents reviewed included two reports of one randomised controlled trial, four systematic reviews and one non-controlled study relating to HIV testing, counselling and disclosure. The review identified two reports^{190,191} of a randomised trial across 52 districts of Senegal which compared different methods of promoting HIV testing and counselling. One third of districts received traditional social mobilisation methods, one third received peer mentoring and one third received no intervention. The results were considered surprising in that peer mentoring was not found to be more effective than traditional social mobilisation methods overall. Rather, both peer mentoring and traditional social mobilisation methods were found to be more effective with particular target groups and for particular objectives (see Table 6). For example, peer mentoring methods were more effective with women while traditional social mobilisation methods were more effective with their male partners. However, neither method resulted in increasing the number of people who tested HIV positive and collected their results.

Table 6: Findings of randomised trial of different methods to promote HIV testing in Senegal^{190,191}

	Traditional social mobilisation	Peer mentoring
Target groups	Men	Women
Objective	Increased number of HIV positive people receiving post-test counselling	Increased number of people testing Increased number of people receiving pre-test counselling Increased number of people picking up their HIV test result Increased number of HIV positive people receiving post-test counselling

72. A systematic review, published in 2012 in the Lancet¹⁹², comparing rapid, point-of-care HIV testing with oral specimens with whole blood specimens found similar levels of specificity but slightly lower levels of sensitivity for the method using oral specimens. Although positive predictive value (PPV) of the two methods was similar in high prevalence settings, PPV was slightly lower for methods using oral specimens in low prevalence settings. The authors advised that these findings should be considered '*when planning worldwide expanded initiatives with this popular test*'.
73. The European Centre for Disease Prevention and Control (ECDC) published two systematic reviews relating to HIV testing and counselling in 2010 and 2011. The

¹⁹⁰ World Bank (undated) *The Effects of Social Mobilization and Peer Education on Counselling and HIV Testing in Senegal* [A10](#)

¹⁹¹ Arcand, J-L., Sakho, C., Wagner, N. and Diallo, P.A. (2011) *HIV/AIDS Sensitisation and Peer Mentoring: Evidence from a Randomised Experiment in Senegal* [A10](#)

¹⁹² Pai, N.P., Balram, B., Shivkumar, S., Martinez-Cajas, J.L., Claessens, C., Lambert, G., Peeling, R.W. And Joseph, L. (2012) *Head-to-Head Comparison of Accuracy of Rapid Point-of-Care HIV Test with Oral Versus Whole Blood Specimens: A Systematic Review and Meta-Analysis* Lancet Published online January 24, 2012 DOI:10.1016/S1473-3099(11)70368-1 [C8](#)

first¹⁹³ synthesised available evidence into guidance to increase uptake and effectiveness of HIV testing in the European Union (See Box 11). The second¹⁹⁴ focused specifically on HIV testing and counselling among migrant populations and ethnic minorities (see p67).

Box 11: Evidence on HIV testing from ECDC systematic review (see ECDC, 2010)

Most of the evidence was from the United States but was considered relevant for Europe. It was considered in three areas – the benefits of testing, the barriers to testing and strategies to promote testing.

Benefits of testing included:

- Benefits to the individual of early HIV diagnosis and treatment
- Public health benefits of testing through behaviour change and reduced infectivity of people on treatment
- Reduced cost of treatment and care if HIV is diagnosed early

As a result of these benefits, routine, one-time HIV testing was found to be cost effective in the United States and France, even in populations with low HIV prevalence. Cost effectiveness was improved when secondary transmission benefits were taken into account and when those testing positive were linked to treatment and care.

Barriers to HIV testing are well-documented in Europe, particularly among men who have sex with men and Sub-Saharan African populations. Barriers exist at individual, institutional and healthcare levels and include a lack of risk perception; fear and stigma around HIV and lack of knowledge about HIV tests and HIV testing policies.

The review concluded that there was evidence that:

- Mass media campaigns have an impact on testing behaviour – most campaigns increase numbers tested in the short term
- Normalising HIV testing results in reduced stigma and high levels of uptake and acceptability
- Training health care providers increases testing rates, improves attitudes to conducting a test and increases confidence to do so
- Replacing written informed consent with verbal consent increases uptake
- Brief pre-test information as opposed to full pre-test counselling is acceptable to patients and results in increased offer and uptake of tests
- Brief post-test information can replace full post-test counselling for those testing negative
- Innovative ways of providing information, including use of printed information and video technology, are acceptable in busy or poorly-resourced settings.
- Rapid/point-of-care tests increase uptake of testing and receipt of results

The review also identified gaps in knowledge including that there is:

- Little information in Europe on testing in non-traditional settings, such as acute and primary care settings; and prisons
- Little information in Europe on the cost effectiveness of HIV testing

¹⁹³ ECDC (2010) *HIV Testing: Increasing Uptake and Effectiveness in the European Union: Evidence Synthesis for Guidance on HIV Testing* [A8](#)

¹⁹⁴ ECDC (2011) *Migrant Health: HIV Testing and Counselling in Migrant Populations and Ethnic Minorities in EU/EEA/EFTA Member States* [A8](#)

74. A systematic review of HIV disclosure in diverse settings¹⁹⁵, published in the American Journal of Public Health in 2011, found that:

- Very few people keep their status completely secret
- Disclosure tends to be iterative – disclosure to sexual partners is often more difficult than to others
- Disclosure tends to be higher in high-income countries, that is in Europe and the United States
- Gender shapes disclosure motivations and reactions. Women appear to disclose and receive disclosure more frequently than men. However, married and pregnant women encounter special difficulties with partner disclosure.
- There were relatively high rates of health workers disclosing people's HIV status without their consent
- The meaning and process of disclosure differ across settings
- Stigmatisation increases fear of disclosure
- Ethical dilemmas resulting from competing values concerning confidentiality influence the extent to which disclosure can be facilitated

75. The study concluded that structural changes, including making more services available, could facilitate HIV disclosure as much as individual approaches and counselling do.

76. Finally, a Population Council study¹⁹⁶ conducted in seven district-level hospitals in Kenya demonstrated that it was feasible and acceptable to health care workers to self-test for HIV. However, the study had significant limitations. It did not demonstrate that self-testing increased the number of health workers having HIV tests. Almost all of those self-testing (92%) had tested before. There was no comparison group so it did not show that self-testing was more effective or more cost-effective than other forms of HIV testing. It did not present any evidence that self testing for HIV increased the number of HIV diagnoses or contributed to earlier HIV diagnosis.

Treatment as prevention – Pre-exposure prophylaxis (PrEP)

77. The documents reviewed included one report of a randomised controlled trial, relating to pre-exposure prophylaxis (PrEP). In 2011, the Partners PrEP study announced¹⁹⁷ that pre-exposure prophylaxis among a group of 4,758 HIV serodiscordant couples in nine sites in Kenya and Uganda had been shown to be effective in preventing HIV transmission. As a result, the placebo arm of the trial was discontinued. There were two treatment arms to the trial – tenofovir (TDF) alone or in combination with emtricitabine (FTC/TDF). Those who received TDF had an average of 62% fewer HIV infections and those who

¹⁹⁵ Obermeyer, C.M., Bajjal. P. and Pegurri, E. (2011) *Facilitating HIV Disclosure Across Diverse Settings: A Review* American Journal of Public Health Vol 101 No. 6 [A8](#)

¹⁹⁶ Kalibala, S., Tun, W., Muraah, W., Cherutich, P., Oweya, E. and Oluoch, P. (2011) *Knowing Myself First: Feasibility of Self-Testing among Health Workers* [A6](#)

¹⁹⁷ University of Washington (2011) *Partners PrEP Study Demonstrates the PrEP Significantly Reduces HIV Risk: Key Messages* [A10](#)

received FTC/TDF had 73% fewer HIV infections than those who received placebo. The differences between the efficacy of the two treatment arms were not significant although that issue continues to be studied. The authors concluded that:

- Pre-exposure prophylaxis (PrEP) is an important strategy to prevent HIV infection
- The Partners PrEP study found high safety and significant efficacy of both TDF and FTC/TDF in reducing HIV acquisition risk in heterosexual African men and women.
- Both TDF and FTC/TDF PrEP significantly reduced HIV risk.
- PrEP offers an urgently needed and highly effective tool for HIV prevention.

Male circumcision

78. Documents reviewed included a report of a round table meeting on male circumcision in 2008 organised by the Forum for Collaborative HIV Research, the Gates Foundation, WHO and UNAIDS¹⁹⁸. Overall, it concluded that:

- Male circumcision is cost-effective in high prevalence settings and may be cost-saving
- Male circumcision shows a positive indirect impact on women at the population level due to the lowered prevalence of male HIV infection, if at least 5% of the male population is circumcised
- Behavioural risk compensation among circumcised men does not outweigh the benefits of male circumcision at the population level
- Early post-operative resumption of sexual activity has a small effect at the population level, though the effect on the individual level may increase the risk of HIV acquisition or transmission and does delay wound healing

79. The report also summarises results of individual studies (see Box 12).

¹⁹⁸ Forum for Collaborative HIV Research, the Bill and Melinda Gates Foundation, WHO and UNAIDS (2008) *Evaluation of Impact of Adult Male Circumcision Programs on HIV Incidence and Prevalence: Current Research, Gaps in Knowledge and Recommendations for Additional Research* [A1](#)

Box 12: Evidence on male circumcision from individual studies (see Forum for Collaborative HIV Research et al., 2008)

The Universities of Nairobi, Illinois, and Manitoba (UNIM) trial is continuing. Approximately 1,700 young men are still enrolled in the post-trial cohort, and they are being tested for HIV and STIs every 6 months. The study also includes a behavioural questionnaire and the young men will receive counselling. Preliminary results from the 42-month follow-up show a protective effect of male circumcision that increases over time.

In South Africa, the Orange Farm phase 4 study, has been underway since 2007. This is an implementation strategy study. The goal is to offer free and safe male circumcision to 40,000 men over two years. Results from the baseline analysis of the study have already been analysed.

The Rakai site in Uganda encompasses four research areas: epidemiological, clinical, operational and basic science. To date, Rakai has 3 years of follow up data available. These preliminary results indicate a reduced acquisition of HSV-2 among circumcised men. The results also confirm the increasing efficacy of male circumcision over time. The incidence of HIV infection per 100 patient-years among circumcised men is 1.2 between months 0-6 post-circumcision; 0.4 between months 6-12; 0.3 between months 12-24 and 0.0 between months 24-36 post circumcision. The incidence of HIV infection per 100 patient-years among uncircumcised men in the control group ranges between 1.2 and 1.8 during the same time periods. Adverse events and time required for surgery decrease as the number of surgeries increases. Adverse events were higher among those who initiated sex before healing was certified. Male circumcision provides benefits to women including significant reductions in genital ulcer disease, trichomonas, bacterial vaginosis and severe bacterial vaginosis.

Cash transfers

80. Documents reviewed included five reports of two randomised controlled trials of cash transfers in Malawi.
81. Two of the reports^{199,200} relate to an impact evaluation of the Mchinji Social Cash Transfer Pilot Scheme conducted in 2007/8. This evaluation used a randomised cluster design in which four villages were allocated to the intervention group and four were allocated to a control group. Data was collected from 374 households in the intervention groups and from 393 households in the control group. Baseline data was collected in March 2007 and follow-up data in March 2008. These reports focus largely on the extent to which this scheme represents an effective social protection mechanism.
82. The remaining three reports^{201,202,203} relate to a two year randomised experiment which recruited 3,821 young women in 176 intervention areas. This experiment sought to test the effect of various forms of cash transfer on HIV incidence among the young women. Findings of this study are summarised in Box 13.

¹⁹⁹ Strobbe, F. And Miller, C. (2011) *Cash Transfers in an Epidemic Context: The Interaction of Formal and Informal Support in Rural Malawi* Policy Research Working Paper 5824 [C10](#)

²⁰⁰ Miller, C., Tsoka, M. and Reichert, K. (2008) *Impact Evaluation Report: External Evaluation of the Mchinji Social Cash Transfer Pilot* [C10](#)

²⁰¹ Ozler, B. (undated) *Unpacking the Impacts of a Randomized CCT Program in Malawi* [A10](#)

²⁰² Anonymous (undated) *A Cash Transfer Program Reduces HIV Infections among Adolescent Girls* [A10](#)

²⁰³ Baird, S., McIntosh, C. and Ozler, B. (2011) *Cash or Condition? Evidence from a Cash Transfer Experiment* [A10](#)

Box 13: Evidence on cash transfers from randomised experiment in Malawi (see Ozler, undated; anonymous, undated; and Baird et al., 2011)

Eighteen months after the programme began, the HIV prevalence among programme beneficiaries was 60% lower than among the control group. Similar effects were seen in HSV-2 prevalence. There was no significant difference in HIV or HSV-2 prevalence between those offered conditional or unconditional payments.

However, conditional cash transfers were more effective than unconditional cash transfers in increasing school enrolment rates, in improving regular school attendance and in increasing English reading comprehension. However, unconditional cash transfers were more effective than conditional cash transfers in reducing teenage pregnancy and marriage rates.

Condom programmes

83. Documents reviewed included two reports of evaluations of 100% condom programmes. The first of these was conducted in 2000 in Thailand and was essentially a 'classic' project/programme evaluation²⁰⁴. The second was conducted in 2007 in Indonesia and essentially used two contiguous districts as comparative case studies²⁰⁵. Most of the conclusions drawn from these studies are focused on processes, i.e. how the programmes worked. However, the evaluations clearly imply that the programmes did work. In the case of Thailand, direct claims are made that the programme resulted in high rates of condom use in commercial sex and in reduced incidence of STIs. However, there are significant issues with these claims:

- First, both studies lack a rigorous counterfactual²⁰⁶. As a result, it is not possible to state that an observed change occurred because of the intervention. A plausible case for this could perhaps be made but this argument is not made very explicitly in these studies.
- Second, the assumption is made that certain observed changes, e.g. increasing condom use, reduced STI incidence will lead to/is linked to reduced HIV incidence, i.e. these measures are being used as 'proxies' of HIV incidence. However, this is based on assumption and no evidence is provided that this is the case.

84. These issues of weak/missing counterfactual and use of flawed proxy indicators for HIV incidence have undermined many HIV prevention-related evaluations. For this reason, they are highlighted here. Rigorous evaluations of the

²⁰⁴ UNAIDS and Ministry of Public Health (2000) *Evaluation of the 100% Condom Programme in Thailand* [C5](#)

²⁰⁵ Spratt, K., Fahir, I. and Surjadaja C. (2007) Implementing 100% Condom Use Policies in Indonesia: A Case Study of Two Districts in Indonesia [C6](#)

²⁰⁶ In the case of the Indonesian study, the argument is made that the neighbouring district serves as comparison. However, this argument is fundamentally flawed. It assumes that the two districts were comparable at the start which is unlikely. If the study is treated as cluster-based, this would mean a sample size of 2, i.e. one intervention cluster and one control cluster. Such a design lacks statistical power. Finally, the fact that the districts are neighbouring increases the risk of spillover of effect from the intervention district to the control district.

effectiveness of HIV prevention interventions require a rigorous counterfactual and biological measures of HIV incidence as indicators of impact.

Behaviour change

85. Documents reviewed included a report from the Global HIV Prevention Working Group in 2008 focused on (re)considerations of behaviour change and HIV prevention for the 21st century²⁰⁷. Essentially, this is an evidenced opinion piece produced by an expert group. It is relatively light on evidence and does not clearly describe the method followed. In some places, the analysis is flawed, for example, when evidence of increasing condom use is presented as evidence of effectiveness in reducing HIV incidence in the absence of confirmatory biological evidence. However, one important strength of the paper is in advocating for a range of evaluative methods to answer questions related to HIV prevention that cannot be answered solely through experimental methods. One example the paper provides of such questions relates to trying to understand the key success factors in countries which are recognised as having been successful in their HIV prevention efforts, e.g. Australia, Senegal and Uganda. However, the paper is not very clear in explaining what those alternative methods are or how they would be used.

Targeted programmes for key populations

86. Documents reviewed included a number related to programmes for key populations, in general, and specific key populations, in particular. In some cases, these studies have a focus that goes beyond HIV prevention only. However, all documents related to key populations are considered here regardless of whether or not they include a focus on other elements of the HIV response, e.g. treatment, care and support. Many do have a strong focus on HIV prevention among key populations.
87. There was one report of a modelling study, published in BMC Public Health in 2011, which considered the impact of targeted interventions on the heterosexual transmission of HIV in four southern states of India²⁰⁸. Essentially, this study created a mathematical model to compare the number of condoms distributed to sex workers with the estimated need, to create a measure of programme intensity and then mapped this against trends in HIV prevalence. Increasing programme intensity was associated with increasing condom use and reduced STI and HIV prevalence among sex workers and young women attending antenatal clinics. There was also one evaluation of a UNODC project working among vulnerable populations in Central Asia and Azerbaijan²⁰⁹.

²⁰⁷ Global HIV Prevention Working Group (2008) *Behaviour Change and HIV Prevention: (Re)Considerations for the 21st Century* [C1](#)

²⁰⁸ Kumar, R., Mehendale, S.M., Panda, S., Venkatesh, S., Lakshmi, P.V.M., Kaur, M., Prinja, S., Singh, T., Viridi, N.K., Bahuguna, P., Sharma, A.K., Singh, S., Godbole, S.V., Risbud, A., Manna, B., Thirimugal, V., Roy, T., Sogarwal, R. and Pawar, N.D. (2011) *Impact of Targeted Interventions on Heterosexual Transmission of HIV in India* BMC Public Health 2011, 11:549 [C7](#)

²⁰⁹ Osipov, K. (2010) *Effective HIV Prevention and Care among Vulnerable Populations in Central Asia and Azerbaijan* [A5](#)

People who inject drugs

88. The largest number of documents (n=14) in this review relating to a specific key population related to people who inject drugs. These included one systematic review; a modelling study; a collection of country case studies; seven 'classic' programme/project evaluations; and four literature reviews.
89. The systematic review and two of the literature reviews focused on reviewing and presenting evidence of the effectiveness of HIV prevention programmes among people who inject drugs. The systematic review²¹⁰ was conducted in the UK following NICE protocols in 2008 and focused specifically on the effectiveness and cost-effectiveness of needle and syringe programmes. The two literature reviews were conducted in 2004 and 2010. The 2004 review²¹¹, conducted by WHO, focused on reviewing the effectiveness of sterile needle and syringe programming. The 2010 review²¹² was focused on 'core interventions' and was focused on strengthening US support for these. Conclusions of these three reviews are summarised in Box 14.

Box 14: Evidence on HIV prevention programmes for people who inject drugs from one systematic review and two literature reviews (see Jones et al., 2008; WHO, 2004; and Needle and Zhao, 2010)

The UK-based systematic review (Jones et al., 2008) concluded that there was good evidence that needle and syringe programmes reduce injecting risk behaviour among injecting drug users, including self-reported sharing of needles and syringes and frequency of injection. The review was less clear on the evidence for needle and syringe programmes reducing HIV incidence. Two reviews concluded that the evidence for this was 'good' while one concluded that the evidence was 'less than robust'. Two reviews also concluded that the evidence for needle and syringe programmes reducing HCV infection among injecting drug users was less than for HIV infection.

The literature reviews were both less equivocal in their assessment of the evidence for the effect of needle and syringe programmes on HIV infection. The WHO review (WHO, 2004) concluded that there was 'compelling' evidence that needle and syringe programmes reduce HIV infection 'substantially'. It also concluded that:

- There is no evidence of any major, unintended consequences
- Needle and syringe programmes are cost-effective
- Needle and syringe programmes have benefits in addition to HIV prevention including increasing recruitment to drug treatment programmes
- Bleach and other forms of disinfectant are not well-evidenced
- Pharmacies and vending machines increase the availability and probably the utilisation of sterile needles and syringes
- Injecting paraphernalia legislation is a barrier to effective HIV control
- Needles and syringe programmes are not sufficient alone to prevent HIV transmission among people who inject drugs

The 2010 literature review (Needle and Zhao, 2010) also concluded that the evidence was 'overwhelming' that needle and syringe programmes and medically-assisted treatment are both highly effective in preventing spread of HIV among injecting drug users.

²¹⁰ Jones, L., Pickering, L., Sumnall, H., McVeigh, J. and Bellis, M.A. (2008) *A Review of the Effectiveness and Cost-Effectiveness of Needle and Syringe Programmes for Injecting Drug Users* [C8](#)

²¹¹ WHO (2004) *Effectiveness of Sterile Needle and Syringe Programming in Reducing HIV/AIDS among Injecting Drug Users* [C2](#)

²¹² Needle, R.H. and Zhao, L. (2010) *HIV Prevention among Injection Drug Users: Strengthening US Support for Core Interventions* [C2](#)

90. A 2011 study²¹³ used existing data, ecological analysis and mathematical modelling to evaluate the impact of harm reduction programmes for both injecting drug users and sex workers (see p64) on HIV infection in Vietnam. Harm reduction services included the provision of free needles, syringes and condoms and peer-based education activities. The evaluation demonstrated a strong link between good programme coverage for injecting drugs users and stable or declining HIV prevalence among injecting drugs users. This link was weaker for programmes for sex workers. The modelling aspect of the study estimated that scaled up harm reduction programmes could reduce new HIV infections among injecting drug users by more than 50% and among sex workers by more than 20%.
91. In 2009, WHO compiled a series of comparative country case studies focused on assessing compulsory treatment of people who use drugs in Cambodia, China, Malaysia and Vietnam²¹⁴. It finds that these centres lack effective drug treatment services. They also lack HIV prevention or care services. It concludes that people who use drugs are at risk in these settings. However, little evidence is presented to support these claims. Rather, the document is framed in terms of human rights principles. It has the tone of an advocacy piece rather than an independent evaluation.
92. Of the seven 'classic' programme/project evaluations identified, six of them related to UNODC-supported programmes in countries or regions^{215,216,217,218,219,220}. The other one was an evaluation of legal and policy concerns for injecting drug users in South Asian Association for Regional Cooperation (SAARC) countries²²¹. The findings, conclusions and recommendations for these evaluations are largely focused on the specific projects and contexts evaluated.
93. The review also identified two other literature reviews. One focused on assessing best practices in harm reduction programmes in the civilian and prison

²¹³ Vietnam Administration for HIV/AIDS Control, UNAIDS, the World Bank, University of New South Wales and Partnership for Epidemic Analysis (2011) *Evaluation of the Epidemiological Impact of Harm Reduction Programs on HIV in Vietnam* [A7](#)

²¹⁴ WHO (2009) *Assessment of Compulsory Treatment of People who Use Drugs in Cambodia, China, Malaysia and Viet Nam: An Application of Selected Human Rights Principles* [C6](#)

²¹⁵ Drew, R. (2009) *Mid-Term Evaluation of UNODC Project XEEJ20: HIV/AIDS Prevention and Care among IDUs and in Prison Settings in Estonia, Latvia and Lithuania* [A5](#)

²¹⁶ Klein, A. (undated) *Final Evaluation RAS/AD/RASI09 Strengthening Comprehensive HIV/AIDS Prevention and Care for Drug Abusers in Custodial and Community Settings* [A5](#)

²¹⁷ Curtis, M. (2009) *HIV/AIDS Prevention and Care among IDUs and in Prison Settings in Romania: Mid-Term Evaluation* [A5](#)

²¹⁸ Osipov, K. and Gorshkova, I.D. (2011) *Scaling-up and Increasing Access to HIV Prevention and Care Services among Injecting Drug Users and in Prisons of the Russian Federation (2006-2011)* [B5](#)

²¹⁹ Redonnet, B. (2011) *HIV/AIDS Prevention and Care among Injecting Drug Users and in Prison Settings in Estonia, Latvia and Lithuania: Final Evaluation Report* [B5](#)

²²⁰ Van der Gouwe, D. (2011) *HIV/AIDS Prevention and Care among Injecting Drug Users and in Prison Settings in Romania: Final Evaluation* [B5](#)

²²¹ Lawyers Collective HIV/AIDS Unit (2007) *Prevention of Transmission of HIV among Drug /users in SAARC Countries: Legal and Policy Concerns Related to IDU Harm Reduction in SAARC Countries* [A5](#)

sectors of the Russian Federation²²². The findings, conclusions and recommendations for this evaluation are largely focused on the specific context of the Russian Federation. The other, in 2010 focused on assessing the vulnerability and resilience of children of injecting drug users and female sex workers (see p64) and family-centred models of care for them in low and middle-income countries²²³. This review explicitly stated that it was descriptive and not evaluative.

94. The six UNODC evaluations^{215,216,217,218,219,220} and the literature review in the Russian Federation²²² include a focus on prison/custodial settings. In addition, the review identified a Canadian literature review of international evidence and experience of prison needle exchange²²⁴. This literature review was supplemented with four country visits. This review was conducted by the Canadian HIV/AIDS Legal Network and the report has a strong advocacy tone. For example, the first summary point is based on a human rights perspective and argues for prisoners' right to health. The review concludes that needle exchange programmes are an effective harm reduction measure and that experience shows that such programmes in prison:

- Do not endanger staff or prisoner safety, and in fact, make prisons safer places to live and work
- Do not increase drug consumption or injecting
- Reduce risk behaviour and disease, including HIV and HCV, transmission
- Have other positive outcomes for the health of prisoners
- Have been effective in a wide range of prisons
- Have successfully employed different methods of needle distribution to meet the needs of staff and prisoners in a range of prisons.

Men who have sex with men

95. Documents reviewed included a systematic review and a series of country case studies related to HIV programmes among men who have sex with men. The systematic review was conducted by ECDC in 2009 and focused on the effectiveness of behavioural and psychosocial HIV/STI prevention interventions for men who have sex with men in Europe²²⁵. This review identified six relevant controlled studies in four countries. However, all were considered to have a high or unclear risk of bias, and only one used a biological measure of STI as an indicator of change. Very few study participants were from a 'non-white background'. Although the review concluded that there was some evidence of a short term reduction in the proportion of men who have sex with men reporting

²²² OHI (undated) *Harm Reduction Programs in the Civilian and Prison Sectors of the Russian Federation: Assessment of Best Practices* [C2](#)

²²³ Beard, J., Biemba, G., Brooks, B., Bresnahan, M., Flynn, D. and Simon, J. (2010) *Children of Female Sex Workers and Injection Drug Users: A Review of Vulnerability, Resilience, and Family-Centred Models of Care in Low and Middle-Income Countries* [C2](#)

²²⁴ Canadian HIV/AIDS Legal Network (2006) *Prison Needle Exchange: Lessons from a Comprehensive Review of International Evidence and Experience* [C2](#)

²²⁵ ECDC (2009) *Effectiveness of Behavioural and Psychosocial HIV/STI Prevention Interventions for MSM in Europe* [A8](#)

unprotected anal intercourse, the main conclusion of the review was that *'rigorous outcome evaluations of any form of behavioural HIV/STI intervention for MSM in Europe are far and few between. There is an overall deficit in outcome evaluations of interventions aimed at reducing HIV/STI risk behaviour among MSM in Europe.'*

96. In 2010, the International HIV/AIDS Alliance in Ukraine produced a document which featured case studies from eight Eastern European countries²²⁶. These sought to document the HIV situation facing men who have sex with men in those countries and examples of best practice responses. Most of the document focuses on describing the HIV-related situation facing men who have sex with men in the countries of the region. However, it does describe the types of HIV-related activities that are provided for men who have sex with men. But it concludes that *'reviews and evaluations of MSM programs are uncommon. There is insufficient available data to come to conclusions regarding the quality of MSM prevention programs, although most key informants are of the view that there is room for significant improvement. There is no consensus at either the regional or national level as to what should constitute a comprehensive package of services for MSM, nor a clear definition of what those services actually are.'*

Sex workers

97. Documents reviewed included one randomised controlled trial, one modelling study and two literature reviews related to HIV programmes among sex workers. The randomised controlled trial was conducted in Armenia and was published in AIDS Behaviour 2010²²⁷. This study, among 120 sex workers, demonstrated that a single, 2-hour, face-to-face session implemented by a trained health educator resulted in more consistent condom use with clients as reported by sex workers and more sex workers reporting applying condoms on clients. The main limitation of this study is that the measured end point is self-reported condom use and not a biological measure of HIV transmission.
98. The modelling study was conducted in India and was published in Sexually Transmitted Infections in 2011²²⁸. It focused on assessing the cost-effectiveness of targeted HIV prevention interventions for female sex workers in India. The benefit measures used were HIV infections averted and disability-adjusted life years (DALYs). The study concluded that targeted interventions for female sex workers result in a reduction of 47% (1.6 million) prevalent and 36% (2.7 million) cumulative HIV cases, respectively, in 2015. Interventions targeted at female sex workers were calculated as costing US\$105.5 per HIV case averted and US\$10.9 per DALY. The study concluded that targeted interventions are a cost-effective strategy for India currently.

²²⁶ International HIV/AIDS Alliance in Ukraine (2010) *Men having Sex with Men in Eastern Europe: Implications of a Hidden HIV Epidemic* [C6](#)

²²⁷ Markosyan, K., Lang, D.L., Salazar, L.F., DiClemente, R.J., Hardin, J.W., Darbinyan, N., Joseph, J.B. and Khurshudyan, M. (2010) *A Randomized Controlled Trial of an HIV Prevention Intervention for Street-Based Sex Workers in Yerevan, Armenia: Preliminary Evidence of Efficacy* AIDS Behav 2010) 14:530-537 [C10](#)

²²⁸ Prinja, S., Bahuguna, P., Rudra, S., Gupta, I., Kaur, M., Mehendale, S.M., Chatterjee, S., Panda, S. and Kumar, R. (2011) *Cost Effectiveness of Targeted HIV Prevention Interventions for Female Sex Workers in India* Sex Transm Infect 2011;87:354e361 [C7](#)

99. One of the literature reviews in 2010 focused on assessing the vulnerability and resilience of children of injecting drug users (p61) and female sex workers and family-centred models of care for them in low and middle-income countries²²⁹. This review explicitly stated that it was descriptive and not evaluative. The other literature review was produced by WHO in 2011 and focused on preventing HIV among sex workers in Sub-Saharan Africa²³⁰. Its conclusions are summarised in Box 15.

Box 15: Evidence on HIV prevention programmes for sex workers from one literature review (WHO, 2011)

The WHO literature review concludes that services must be seen in the context of the UNAIDS three pillars of an effective, evidence-informed response to HIV and sex work:

1. Assure universal access to comprehensive HIV prevention, treatment, care and support.
2. Build supportive environments, strengthen partnerships and expand choices.
3. Reduce vulnerability and address structural issues.

The 'evidence' for this is a UNAIDS guidance note on HIV and sex work produced in 2009.

The review then identifies three types of intervention:

1. **Interventions for preventing HIV acquisition in female sex workers** – these are divided into three types:
 - a. Reducing the demand for unprotected sex particularly through correct, consistent condom use – evidence is presented from two systematic reviews and three other studies that targeted HIV prevention programmes for sex workers result in increased condom use. In one of these studies, increased condom use was associated with reduced STI and HIV prevalence. Evidence is also presented from a randomised trial that adding clinic-based counselling to peer education reduces STI prevalence. Reference is also made to two long-term studies which showed declining high-risk behaviour and HIV incidence among Kenyan sex workers. The explanation for this is said to 'possibly' be 'the ongoing risk-reduction counselling provided as part of study activities.' A study from Senegal is cited that provides evidence that condom promotion among sex workers results in increased condom use with their (regular?) partner. A study is cited which is said to demonstrate the effectiveness of alcohol-control measures in the context of addressing issues which undermine effective condom use.
 - b. Reducing HIV transmission by diagnosing and treating STIs. Three studies are cited which report reduced STI and HIV incidence among sex workers. Another study is cited which reported a reduction in the per-act rate of HIV acquisition and argued that this 'may represent the impact of improved prevention and treatment of STIs, among other factors.' One South African project is cited as having developed innovative ways of providing STI treatment to sex workers.

²²⁹ Beard, J., Biemba, G., Brooks, B., Bresnahan, M., Flynn, D. and Simon, J. (2010) *Children of Female Sex Workers and Injection Drug Users: A Review of Vulnerability, Resilience, and Family-Centred Models of Care in Low and Middle-Income Countries* [C2](#)

²³⁰ WHO (2011) *Preventing HIV among Sex Workers in Sub-Saharan Africa: A Literature Review* [C2](#)

Box 15 (continued): Evidence on HIV prevention programmes for sex workers from one literature review (WHO, 2011)

c. Empowering sex workers through:

- i. Sex work networks and organisations – a Nigerian study describing these is presented
 - ii. Information, education and communication (IEC) – three studies showing low HIV-related knowledge among sex workers are cited. One of these studies, in Kenya, demonstrated that peer education improved STI-related knowledge. One Ghanaian study is cited which demonstrated a link between HIV knowledge and condom use among sex workers. Studies are cited which provide examples of IEC materials and guidance on the form these should take.
 - iii. Voluntary HIV testing and counselling – evidence on the value of HIV testing and counselling specifically for sex workers is limited. Two studies showed that sex workers who know they are HIV positive curtailed their sex work activities, had less unprotected sex and reduced drug use (in the US) and reported fewer sexual partners and higher condom use (in Kenya). In one Ghanaian study, almost half of the sex workers who knew their HIV status had been tested when pregnant.
 - iv. Increasing skills for condom negotiation, client refusal and creating a safer workplace – a study from South Africa is cited as showing that an intervention to enhance skills, increase self-efficacy and empower sex workers who used drugs resulted in a decrease in substance use and STI symptoms.
 - v. Prevention of gender-based violence – three studies are cited as providing evidence of police harassment of sex workers.
2. **Treatment, prevention and care for sex workers living with HIV** – one study detailing the problems facing HIV positive sex workers is cited. Other comments and conclusions in this section are unevidenced.
3. **Prevention of HIV among clients of sex workers** – four studies are cited which provide evidence of the HIV risk to men of having sex with a female sex worker. A Kenyan study which documented men's negative attitudes to condoms is cited. Truckers are reported to have high rates of buying sex from a sex worker. Studies with truckers are cited which show:
- Increased condom use and reduced demand for sex without a condom in Senegal
 - Reduced STI incidence in Kenya
 - Increased condom use in Burkina Faso

A project which has found innovative ways of reaching clients of sex workers in Senegal is cited.

Migrant populations and ethnic minorities

100. Documents reviewed included one systematic review related to HIV testing and counselling (see p53) among migrant populations and ethnic minorities in Europe²³¹. However, although this study identified more than 30 relevant studies, most of these were qualitative in nature. As a result, the review is largely descriptive in nature with little or no empirical evidence, e.g. of any studies of which strategies are most effective in promoting HIV testing and counselling among migrant populations and ethnic minorities.
101. In addition, the documents reviewed included a 'classic' project evaluation of the Partnership on HIV/AIDS and Mobility in Southern Africa (PHAMSA)²³²

Prevention of mother to child transmission (PMTCT)

102. This review identified a substantial number (n=14) of documents relating to PMTCT. These included two non-randomised controlled trials, one systematic review, four uncontrolled/qualitative studies, four 'classic' project/programme evaluations and three expert opinions/meeting reports.
103. In 2010, an expert panel reported on PMTCT to the US Congress and Global AIDS Coordinator²³³. This recommended four 'prongs' to PMTCT services:
- Prevention of HIV among women of childbearing age
 - Prevention of unintended pregnancies among women living with HIV
 - Prevention of transmission of HIV from mothers living with HIV to their infants
 - Treatment, care and support for mothers living with HIV, their children and families
104. The panel recommended addressing the third and fourth prongs through a PMTCT cascade consisting of:
- Antenatal care attendance
 - HIV counselling and testing with same day return of results to the woman
 - Determination of eligibility for HIV treatment through CD4 count assessment (or less optimally, through clinical staging) with rapid return of results to the woman and her provider
 - Provision of antiretroviral therapy for women who require therapy for their own health and antiretroviral prophylaxis to prevent mother-to-child transmission to women who do not yet require therapy
 - Adherence to HIV treatment or prophylactic regimens as medically appropriate

²³¹ ECDC (2011) *Migrant Health: HIV Testing and Counselling in Migrant Populations and Ethnic Minorities in EU/EEA/EFTA Member States* [A8](#)

²³² Lee, T. (2010) *PHAMSA II Evaluation Report* [B5](#)

²³³ Expert Panel (2010) *PMTCT of HIV: Expert Panel Report and Recommendations to the US Congress and US Global AIDS Coordinator* [C1](#)

- Safe labour and delivery services
- Timely provision of HIV prophylactic regimens and cotrimoxazole for the infant
- Safe feeding practices for the infant
- Early follow-up HIV testing for the infant with rapid initiation of antiretroviral treatment for those who are infected, and testing to determine final HIV status in breastfed infants
- Ongoing, clinical, psychological and social care, support and monitoring for the mother, infant and family

105. The panel also commented on the contentious issue of safe feeding practices for the infant stating that *'risk of mother-to-child transmission of HIV does not end at birth but continues for as long as the infant is breastfeeding. Women may not be able to reliably access appropriate infant formula or the clean water needed to prepare it. Even if this can be accomplished, breastfeeding is often the cultural norm, and formula feeding may draw scrutiny from friends and family, potentially exposing the woman to stigma and discrimination, and leading to formula feeding in private and breastfeeding in public. This 'mixed' feeding of part breast milk and part formula has been shown to present the greatest risk for HIV transmission. Additionally, if formula feeding is interrupted due to inadequate supply of formula or compromised by use of unsafe water for preparation, infants are at extremely high risk for morbidity and mortality from other causes, such as diarrhoea and malnutrition, thus defeating the ultimate goal of HIV-free infant survival. For these reasons, WHO infant feeding guidelines for HIV-positive women have recommended exclusive breastfeeding for all women unless specific criteria for formula feeding can be met - specifically formula feeding must be 'AFASS' (affordable, feasible, acceptable, safe and sustainable). This conditional approach has been extremely difficult to implement and has resulted in tremendous confusion among health care workers and mothers and likely contributed to ongoing transmission during breastfeeding. Given recent clinical trial results demonstrating that provision of antiretroviral drugs to the breastfeeding infant or lactating mother can significantly decrease breast milk transmission, WHO now recommends that countries develop a national plan for feeding guidance for all infants of HIV-positive women that should include a comprehensive approach to health care access. If breastfeeding is chosen for national guidelines, exclusive breastfeeding for 6 months followed by continued breastfeeding with appropriate complementary feeding through age 12 months accompanied by antiretroviral prophylaxis of the infant or mother to prevent breast milk HIV transmission is recommended.'*

106. In 2010, a systematic review was conducted of HIV- free survival by feeding practice²³⁴. This also looked for evidence of death from other causes, such as infectious diseases and malnutrition. Although the data available to answer these questions was considered of moderate to low quality, the review concluded that there was:

²³⁴ Chetty, T., Naidu, K.K. and Newell, M.L. (2010) *Systematic Review of HIV-free Survival by Infant Feeding Practices Birth to 18 Months* [C8](#)

- moderate quality evidence to support exclusive breastfeeding up to 6 months compared to replacement feeding or mixed feeding
- low to very low grade evidence to support continued breastfeeding for 6 to 12 months and 12 to 24 months respectively
- moderate quality evidence that abrupt cessation of breastfeeding or weaning had adverse health outcomes in terms of morbidity and mortality between 12 to 24 months of life

107. The review concluded that *'the significance of these findings should be considered alongside the evidence on antiretroviral interventions to reduce postnatal transmission of HIV.... These interventions have been shown to reduce postnatal transmission of HIV to the infant...'*
108. The documents reviewed for this synthesis analysis include a report of a study²³⁵ conducted by Population Council of how well counselling promoted good infant feeding practices in Kenya and Zambia²³⁶.
109. Two studies present evidence of factors contributing to success of PMTCT activities. A non-controlled study from Rwanda²³⁷, published in the Journal of the International AIDS Society, using regression analysis of data from a national household survey, reported that being a member of an association of people living with HIV improved by 30% HIV-free survival among children. A non-randomised controlled study conducted by Population Council in Kenya²³⁸ examined the benefits of community-based activities for PMTCT. However, both these studies have significant methodological weaknesses (see Table 3, p33 and Annex 1, p93) so findings and conclusions should be interpreted with extreme caution.
110. Seven studies evaluated specific PMTCT programmes using a range of different methods²³⁹. These included UN pilot projects²⁴⁰ and programmes in Indonesia²⁴¹, Moldova²⁴², the Philippines²⁴³, Russia²⁴⁴, Rwanda²⁴⁵ and

²³⁵ Population Council (2003) *Infant Feeding Counselling Within Kenyan and Zambian PMTCT Services: How Well Does It Promote Good Feeding Practices?* [C9](#)

²³⁶ Although this study documented some issues relating to infant feeding counselling in Kenya and Zambia, it is difficult to interpret because of lack of clarity/consensus over definitions of 'good feeding practices' and significant methodological concerns (see Table 3, p27).

²³⁷ Ruton, H., Mugwaneza, P., Shema, N., Lyambabaje, A., Bizimana, J. de D., Tsague, L., Nyankesha, E., Wagner, C.M., Mutabazi, V., Nyemazi, J. P., Nsanzimana, S., Karema, C. and Binagwaho, A. (2012) *HIV-Free Survival among 9-24-month-old- Children Born to HIV-Positive Mothers in the Rwandan National PMTCT Programme: A Community-Based Household Survey* Journal of the International AIDS Society: 15:4 [A6](#)

²³⁸ Population Council (2007) *Community-Based Activities Complement PMTCT Programs in Kenya* [C9](#)

²³⁹ Four 'classic' project/programme evaluations of UN pilot projects and in Indonesia, Moldova and the Philippines; a facility survey in Russia; a cross-sectional survey in Rwanda; and a prospective birth cohort study in Ukraine.

²⁴⁰ Rutenberg, N., Baek, C., Kalibala, S. and Rosen, J. (2003) *Evaluation of UN-supported Pilot Projects for the PMTCT of HIV: Overview of Findings* [C5](#)

²⁴¹ Laksmono, L.H. and Setyahadi, M.I. (2006) *A National Assessment for Preventing HIV in Mother and Children: An Indonesian Story* PP presentation [A5](#)

²⁴² Parkhomenko, Z. (2009) *Needs Assessment Study: PMTCT Programme in the Republic of Moldova* [A5](#)

Ukraine²⁴⁶. These evaluations include a wide range of conclusions and recommendations on how to improve delivery of PMTCT services, particularly of the specific programmes evaluated. In addition, the Ukrainian birth cohort study, published in BMC Infectious Diseases, comments that *'we have explored the effectiveness of the Ukraine PMTCT programme in operational settings'* and concludes that *'data from our study not only provide valuable information for the evaluation and strengthening of Ukraine's PMTCT programme, but also for the ongoing development of strategies for prevention of HIV infection in infants elsewhere in Eastern Europe and Central Asia. The experience in Ukraine highlights that it is possible for a lower income country to make a substantial impact on MTCT (in this case, halving of the MTCT rate in only five years) and underscores the appropriateness of the public health approach to prevention of HIV infections in infants recommended by WHO.'*

111. Finally, in 2009, UNICEF, WHO, UNAIDS and the Vanderbilt School of Medicine held a consultative meeting on evaluating the impact of PMTCT services in low- and middle-income countries²⁴⁷. In addition, in 2010, EGPAF and WHO published a collection of abstracts related to HIV care and PMTCT in resource-limited settings²⁴⁸. These are not considered further in this review.

Role of alcohol in HIV transmission

112. Documents reviewed included one qualitative study of the role of alcohol consumption on sexual partners and HIV transmission in Namibia²⁴⁹. However, this was largely a descriptive observational study which did not appear to answer questions such as does alcohol consumption drive HIV transmission and do programmes to counter alcohol consumption reduce HIV transmission? The study does make a number of recommendations for areas on which programmes could focus:

- Reducing concurrent sexual partnering and partner turnover
- Reducing alcohol consumption to reduce sexual behaviour while drinking
- Changing alcohol consumption patterns
- Addressing the exchange of sex for alcohol or gifts

²⁴³ Belimac, J.G., Faldas, R., Nadoll, M., Castro, P. and Salva, M. (2008) *Review of the Pilot Phase of PMTCT: Davao Medical Center* [A5](#)

²⁴⁴ Vartapetova, N.V. and Karpushkina, A.V. (2006) *Prevention of Mother to Child Transmission of HIV and Family Planning Practices in HIV-Infected Women: Facility Survey: Report of Main Findings* [C6](#)

²⁴⁵ Ministry of Health (2007) *Evaluation of Access to and Utilization of Services for the PMTCT of HIV in Rwanda* [A6](#)

²⁴⁶ Thorne, C., Semenenko, I., Pilipenko, T., Malyuta, R. and the Ukraine European Collaborative Study (2009) *Progress in PMTCT of HIV Infection in Ukraine: Results from a Birth Cohort Study* BMC Infectious Diseases 2009, 9:40 [A6](#)

²⁴⁷ UNICEF, WHO, UNAIDS and Vanderbilt School of Medicine (2009) *Consultative Meeting on Evaluating the Impact of PMTCT Services in Low- and Middle-Income Countries in Averting New Infections in Children and Improving Child Survival* [C1](#)

²⁴⁸ EGPAF and WHO (2010) *HIV Care & PMTCT in Resource-Limited Settings* [C1](#)

²⁴⁹ LeBeau, D. and Yoder, P.S. (2009) *Alcohol Consumption, Sexual Partners and HIV Transmission in Namibia* DHS Qualitative Research Study 16 [A6](#)

- Eliminating minors in bars
- Increasing availability and use of condoms

HIV prevention projects and national programmes

113. Documents reviewed included five reports of evaluations of specific HIV prevention projects/ programmes including:

- Project evaluations of the Avahan project in India^{250,251}, the Bashy Bus in Jamaica²⁵² and the Partnership on HIV/AIDS and Mobility in Southern Africa (PHAMSA)²⁵³
- Evaluations of the national HIV prevention programme in Moldova²⁵⁴

114. These included one uncontrolled/qualitative study; three 'classic' programme/project evaluations; and one literature review. In some cases, e.g. descriptions of Avahan, the project evaluations closely resembled project descriptions/promotional materials.

²⁵⁰ Bill and Melinda Gates Foundation (2008) *Avahan - The India AIDS Initiative: The Business of HIV Prevention at Scale* [A5](#)

²⁵¹ Bill and Melinda Gates Foundation (2008) *Use It or Lose It: How Avahan Used Data to Shape its HIV Prevention Efforts in India* [A5](#)

²⁵² Kazaara, J. (undated) *Measuring the Impact of the Bashy Bus HIV Mobile Clinic in Jamaica* [A9](#)

²⁵³ Lee, T. (2010) *PHAMSA II Evaluation Report* [B5](#)

²⁵⁴ Bivol, S., Vladicescu, N., Lazarescu, L., Dumitrasco, A. and Osadcii, O. (2011) *Evaluation of HIV Prevention Programmes in the Republic of Moldova 2010* [A2](#)

Treatment

115. Documents reviewed included one systematic review of evaluations of HIV/AIDS assistance, conducted by DANIDA in 2008 (see Box 7)²⁵⁵. Evidence from this study related to HIV treatment topics is summarised in Table 7.

Table 7: Evidence from HIV-related evaluations as assessed by DANIDA synthesis in 2008: HIV treatment²⁵⁵

Thematic Area	From donor-supported evaluations reviewed	From other literature
ART	Dearth of donor evaluations.	<p>First documented effective in 1996. Scale up to developing countries from 1999. Evidence and evaluations for rapid ART scale-up 'fairly limited'. Based on small pilot projects. Some studies questioned cost effectiveness. But, strong public and political pressure. Dearth of peer-reviewed evaluations. Evidence of:</p> <ul style="list-style-type: none"> • Increasing numbers receiving treatment • High levels of adherence in small-scale projects – factors affecting adherence identified including costs; time spent; side effects; stigma; lack of quality counselling and community support • Emergence of ARV resistance • Fears about increasing risk behaviour among people on ART not realised • Treatment lowering viral load and therefore reducing HIV transmission • Reduced mortality among people on ART <p>Concerns raised about cost and cost effectiveness; pressure on human resources and diversion from other services; sustainability; equity and gender balance.</p>
Opportunistic infections	Not covered	
Palliative treatment	Not covered	National strategies absent. Services needed. Hospice and home palliative cares improve patient outcomes but concerns about efficiency and equity. Most evidence is from developed countries.
Home-based care	Not covered	Nothing identified.

Antiretroviral therapy – effects, cost effectiveness and method of delivery

116. Documents reviewed included two uncontrolled studies and two non-randomised controlled studies focused on the effects of ART. A prospective cohort study, published in PLoS ONE in 2011²⁵⁶, showed that HIV positive children in rural Zambia achieved good virologic and immunologic outcomes on ART. Children with longer travel times, those taking nevirapine at ART initiation, and those who were non-adherent, were less likely to achieve virologic suppression after 6 months of ART. Another report, published in BMC

²⁵⁵ Kovsted, J. and Schleimann, F. (2008) *Synthesis of Evaluations of HIV/AIDS Assistance* [C8](#). This synthesis covered a range of thematic areas and was classified as 'other'.

²⁵⁶ Van Dijk, J.H., Sutcliffe, C.G., Munsanje, B., Sinywimaanzi, P., Hamangaba, F., Thuma, P.E. and Moss, W. J. (2011) *HIV-Infected Children in Rural Zambia Achieve Good Immunologic and Virologic Outcomes Two Years After Initiating ART* PLoS ONE 6(4): e19006 [A6](#)

Infectious Diseases²⁵⁷, from the same cohort showed that children's height and weight both increase on ART.

117. Non-randomised, controlled studies from Kenya demonstrate the broader effects and benefits of ART. A study²⁵⁸, which compared longitudinal household survey data from the intervention group with cross-sectional data from a representative national survey, concluded that ART for HIV positive children not only had nutritional benefits, e.g. increased weight, but it also increased weekly hours of school attendance by 20%. An earlier study from the same authors²⁵⁹ showed that, within six months, those receiving ART had a 20% increased chance of participating in the labour force and a 35% increase in weekly hours worked.
118. Documents reviewed included two costing studies and one modelling exercise related to the costs and cost effectiveness of ART. A study measuring the cost of providing ART at 43 PEPFAR-supported sites was published in AIDS in 2011²⁶⁰. This showed that ART costs varied widely across countries but median annual economic cost was US\$202 for pre-ART patients and US\$880 for ART patients. Costs were 15-20% higher for new clients compared to established clients. Costs were reduced as treatment sites matured with a 49% reduction in costs between the first and second six months of operation, with a further 30% reduction in costs the following year. The other costing study developed an approach to costing ART and applied it in one setting²⁶¹. An assessment of the cost effectiveness of ART in Côte d'Ivoire was published in the New England Journal of Medicine in 2006²⁶². This concluded that *'the incremental cost per year of life gained was US\$240²⁶³ for prophylaxis alone, US\$620 for antiretroviral therapy and prophylaxis without CD4 testing, and US\$1,180 for antiretroviral therapy and prophylaxis with CD4 testing, each compared with the next least expensive strategy. None of the strategies that used antiretroviral therapy alone were as cost-effective as those that also used trimethoprim-sulfamethoxazole prophylaxis.'*
119. Documents reviewed included one randomised controlled trial and one study based on country-reported data relating to methods of ART delivery. The

²⁵⁷ Sutcliffe, C.G., Van Dijk, J.H., Munsanje, B., Hamangaba, F., Siniwyaanzi, P., Thuma, P.E. and Moss, W.J. (2011) *Weight and Height Z-Scores Improve after Initiating ART among HIV-Infected Children in Rural Zambia: A Cohort Study* BMC Infectious Diseases 2011, 11:54 [A6](#)

²⁵⁸ Thirimurthy, H., Zivin, J.G. and Goldstein, M. (2007) *AIDS Treatment and Intrahousehold Resource Allocations: Children's Nutrition and Schooling in Kenya* Working Paper No. 105 Center for Global Development [A9](#)

²⁵⁹ Thirimurthy, H., Zivin, J.G. and Goldstein, M. (2005) *The Economic Impact of AIDS Treatment: Labour Supply in Western Kenya* [A9](#)

²⁶⁰ Menzies, N.A., Berruti, A.A., Berzon, R., Filler, S., Ferris, R., Ellerbrock, T.V. and Blandford, J.M. (2011) *The Cost of Providing Comprehensive HIV Treatment in PEPFAR-supported Programs* AIDS 2011; 25:1753-1760 [C6](#)

²⁶¹ Rosen, S., Long, L. and Sanne, I. (undated) *Cost and Cost Effectiveness of ART Delivery* [C6](#)

²⁶² Goldie, S.J., Yazdanpanah, Y., Losina, E., Weinstein, M.C., Anglaret, X., Walensky, R.P., Hsu, H.E., Kimmel, A., Holmes, C., Kaplan, J.E. and Freedberg, K.A. (2006) *Cost-Effectiveness of HIV Treatment in Resource-Poor Settings - The Case of Cote d'Ivoire* NEJM Special Article 355(11) [A7](#)

²⁶³ In 2002 US\$

randomised controlled trial, published in the Lancet in 2009²⁶⁴, demonstrated that home-based delivery of ART in Uganda produced equivalent results to facility-based services. A study, based on country reports from the Asia Pacific region, was published in AIDS in 2010²⁶⁵. This documented the increase in number of people receiving ART in the countries of the region and concluded that *'to improve treatment outcomes, national programs should focus on earlier identification of persons requiring ART, decentralization of ART services, and the development of stronger healthcare systems to support the provision of a continuum of HIV care.'*

120. Documents reviewed included two systematic reviews of task shifting published in Human Resources for Health in 2010²⁶⁶ and 2011²⁶⁷. These concluded that shifting tasks, such as ART initiation and monitoring, from doctors to nurses is an effective and efficient solution to the issue of shortages of human resources in many settings where ART is required. Specifically, these studies showed that task shifting increased access to ART, was cost effective and provided equal or better quality of care. Studies reviewed had mixed results on the level of physician/non-physician clinical decision agreement. But, in most studies the level of such agreement was good. However, progress in implementing task shifting has been relatively slow because of quality and safety concerns; professional and institutional resistance and the need to sustain motivation and performance. These two studies are cited elsewhere in this report (p46) as examples of studies with a strong focus on efficiency.
121. Documents reviewed included one non-randomised controlled study of the National Nigerian ART Training Programme published in Journal of Social Aspects of HIV/AIDS in 2006²⁶⁸. However, concerns about the methods used (see Table 3) mean that the findings and conclusions of this study should be interpreted with extreme caution.

Antiretroviral therapy – laboratory monitoring

122. Documents reviewed included one randomised controlled study and one non-randomised controlled study focused on laboratory monitoring of people living with HIV on ART. The randomised controlled trial, published in the British

²⁶⁴ Jaffar, S., Amuron, B., Foster, S., Birungi, J., Levin, J., Namara, G., Nabiryo, C., Ndembi, N., Kyomuhangi, R., Opio, A., Bunnell, R., Tapper, J.W., Mermin, J., Coutinho, A. and Grosskurth, H. (2009) *Rates of Virological Failure in Patients Treated in a Home-Based Versus a Facility-Based HIV-Care Model in Jinja, Southeast Uganda: A Cluster Randomised Equivalence Trial* Lancet 2009 December 19: 374(9707) 2080-2089 [A10](#)

²⁶⁵ Srikantiah, P., Ghidinelli, M., Bachani, D., Chasombat, S., Daoni, E., Mustikawati, D.E., Nhan, D.T., Pathak, L.R., San, K.O., Vun, M.C., Zhang, F., Lo, Y-R. and Narain, J.P. (2010) *Scale-up of National ART Programs: Progress and Challenges in the Asia-Pacific Region* AIDS 2010, 24 (suppl 3):S62–S71 [C4](#)

²⁶⁶ Callaghan, M., Ford, N. and Schneider, H. (2010) *A Systematic Review of Task Shifting for HIV Treatment and Care in Africa* Human Resources for Health 2010, 8:8 [C8](#)

²⁶⁷ Fulton, B.D., Scheffler, R.M., Sparkes, S.P., Auh, E.Y., Vujicic, M. and Soucat, A. (2011) *Health Workforce Skill Mix and Task Shifting in Low Income Countries: A Review of Recent Evidence* Human Resources for Health 2011, 9:1 [C8](#)

²⁶⁸ Idigbe, E.O., Odutolu, O., Okonkwo, P., Folayan, M.O., Uwakwe, C.B.R., Audu, R.A., Jolayemi, O.A., Osagbemi, M., (2006) *Evaluation of the Nigerian National ART Training Programme* Journal of Social Aspects of HIV/AIDS Vol. 3 No. 3 [C9](#)

Medical Journal in 2011²⁶⁹, compared monitoring ART through clinical means only; through clinical means with CD4 count; and through clinical means, CD4 count and viral load in Uganda. The study showed that the rate of new AIDS defining events or death was higher in the clinical arm than in either of the arms with laboratory monitoring. There was no significant difference between the two arms with laboratory monitoring.

123. The non-randomised controlled trial, published in *Clinical Infectious Diseases* in 2009, compared viral load testing using dried blood spot (DBS) with plasma assay²⁷⁰. The study found that the correlation between plasma and DBS viral load was strong. It concluded that the use of DBS can simplify virological monitoring in resource-limited settings.

Antiretroviral therapy – adherence

124. Documents reviewed included four uncontrolled studies, one literature review and one meeting report focused on issues of ART adherence. One of the uncontrolled studies, published in *BMC Public Health* in 2011²⁷¹, analysed barriers to ART adherence in rural Mozambique. This focused on the perspectives of health care workers and community participants. It concluded that:

- Barriers identified by community participants included lack of confidentiality and poor treatment by hospital staff; doubts as to the benefits of ART; and sharing medications with family members.
- Men expressed greater concern than women about poor treatment by health care workers.
- Health care workers blamed patient preference for traditional medicine and the side effects of medication for poor adherence.

125. Two studies examined risk factors for non-adherence. A longitudinal study in Nigeria, published in *PLoS ONE* in 2010²⁷², used pharmacy refill records to assess loss to follow-up and poor ART adherence. Factors associated with loss to follow up and poor adherence are illustrated in Table 8. A cross-sectional study in Rwanda²⁷³ assessed adherence using a) patient 3-day recall, b)

²⁶⁹ Mermin, J., Ekwaru, J.P., Were, W., Degerman, R., Bunnell, R., Kaharuzza, F., Downing, R., Coutinho, A., Solberg, P., Alexander, L.N., Tapperro, J., Campbell, J. and Moore, D.M. (2011) *Utility of Routine Viral Load, CD4 Cell Count, and Clinical Monitoring among Adults Receiving ART in Uganda: Randomised Trial* *BMJ* 2011; 343 d6792 [A10](#)

²⁷⁰ Johannessen, A., Garrido, C., Zahonero, N., Sandvik, L., Naman, E., Kivuyo, S.L., Kasubi, M.J., Gundersen, S.G., Bruun, J.N. and De Mendoza, C. (2009) *Dried Blood Spots Perform Well in Viral Load Monitoring of Patients who Receive ART in Rural Tanzania* *Clinical Infectious Diseases* 2009; 49:976–81 [C9](#)

²⁷¹ Groh, K., Audet, C.M., Baptista, A., Sidat, M., Vergara, A., Vermund, S.H. And Moon, T.D. (2011) *Barriers to ART Adherence in Rural Mozambique* *BMC Public Health* 11:650 [C6](#)

²⁷² Charurat, M., Oyegunle, M., Benjamin, R., Habib, A., Eze, E., Ele, P., Ibanga, I., Ajayi, S., Eng, M., Mondal, P., Gebi, U., Iwu, E., Etiebet, M-A., Abmiku, A., Dakum, P., Farley, J. And Blattner, W. (2010) *Patient Retention and Adherence to Antiretrovirals in a Large Antiretroviral Therapy Program in Nigeria: A Longitudinal Analysis for Risk Factors* *PLoS ONE* 5(5): e10584. doi:10.1371/journal.pone.0010584 [A6](#)

²⁷³ TRACPlus/CIDC, ICAP, NUR/SPH, NRL and CDC (2011) *Adherence to ART among HIV Care and Treatment Patients in Rwanda: Report from a Cross-Sectional Study* [A6](#)

patient 30-day recall, c) CD4 change, and d) viral load. Commonest reasons for non-adherence included forgetfulness, being away from home and not having food.

Table 8: Factors associated with loss to follow-up and poor adherence to ART in Nigeria²⁷²

Loss to follow-up (LTFU)	Poor adherence
Gender – men more likely to be LTFU	Age – those <35 more likely to have poor adherence
Education level – those with primary education only more likely to be LTFU	Travel time > 2 hours associated with poor adherence
Type of regimen – those with tenofovir or zidovudine less likely to be LTFU	ART duration > 6 months associated with poor adherence
Baseline CD4 count <100 or >350 associated with higher risk of LTFU	Baseline CD4 count >200 associated with poor adherence
	Type of regimen – those with tenofovir better adherence
	Disclosure to family member – results in better adherence

126. One study of 111 facilities across Africa, Asia and Latin America, published in PLoS Med in 2011²⁷⁴, sought to define the optimal definition for 'lost to follow up'. 'False positives' were defined as people who would have been defined as lost to follow up who attended for care in the following 12 months. 'False negatives' were defined as people who would not have been defined as lost to follow up but who did not attend for care in the following 12 months. Based on this analysis, the study recommended that lost to follow up be defined as not having attended for care in a period of 180 days from last clinic visit.
127. The method for the literature review²⁷⁵ of ART adherence was poorly-described. As a result, it borders on being an opinion piece. It does contain a table of clinic-based strategies for promoting adherence. However, some of this is quite specific to a US or European context, e.g. 'store medications by the coffee maker'. There is a regular international conference on HIV treatment and prevention adherence. This review captured the list of poster abstracts²⁷⁶ for the 6th such conference in 2011.

Adherence among adolescents

128. In addition, three uncontrolled studies focusing on specific issues relating to ART adherence among adolescents were identified. In 2003, a study was published in Archives of Pediatrics and Adolescent Medicine focused on identifying barriers to ART adherence among adolescents in the US²⁷⁷. The

²⁷⁴ Chi, B.H., Yiannoutsos, C.T., Westfall, A.O., Newman, J.E., Zhou, J., Cesar, C., Brinkhof, M.W.G., Mwango, A., Balestre, E., Carriquiry, G., Sirisanthana, T., Mukumbi, H., Martin, J.N., Grimsrud, A., Bacon, M. and Thiebaut, R. (2011) *Universal Definition of Loss to Follow-Up in HIV Treatment Programs: A Statistical Analysis of 111 Facilities in Africa, Asia, and Latin America* PLoS Med 8(10): e1001111 [C6](#)

²⁷⁵ Simoni, J.M., Amico, K.R., Pearson, C.R. and Malow, R. (2008) *Strategies for Promoting Adherence to ART: A Review of the Literature* Current Infectious Disease Reports 2008, 10:515–521 [C2](#)

²⁷⁶ IAPAC, NIMH and PIM (2011) *6th International Conference on HIV Treatment and Prevention Adherence* [C1](#)

²⁷⁷ Murphy, D.A., Sarr, M., Durako, S.J., Moscicki, A-B., Wilson, C.M. and Muenz, L.R. (2003) *Barriers to HAART Adherence among HIV-infected Adolescents* Arch Pediatr Adolesc Med 2003; 157:249-255 [C6](#)

two main barriers identified were medication-related adverse effects and complications in day-to-day routines. In 2009, a similar study among US youth, published in *AIDS Patient Care and STDs*²⁷⁸ found that low levels of adherence self-efficacy²⁷⁹ and outcome expectancy²⁸⁰, and the presence of certain structural barriers²⁸¹ were associated with poorer ART adherence. In 2009, a study in Southern Africa, published in *JAIDS*²⁸², documented that ART adherence was poorer among adolescents than among adults.

ART access and adherence among children

129. Also, two systematic reviews and five uncontrolled studies focusing on specific issues relating to ART access and adherence among children were identified. Although the 2007 study, published in *Pediatrics*²⁸³, did not have a very clear description of method used, it did include a comprehensive assessment of different methods for measuring ART adherence in children (see Table 9). The study also provided some evidence of the value of various measures in promoting children's adherence to ART including directly-observed therapy, 12 week educational programmes, gastrostomy tube placement and nurses' home visits. The paper concludes that promoting adherence is likely to require intensive interventions and one-off interventions are likely to be insufficient. The 2008 study, published in the *Pediatric Infectious Diseases Journal*, had a focus on the situation in low- and middle-income countries²⁸⁴. It concluded that ART adherence among children in low- and middle-income countries is similar to levels seen in high-income countries. It identified a number of issues associated with low levels of adherence including family structure; socio-economic status, disclosure and ART regimen.

²⁷⁸ Rudy, B.J., Murphy, D.A., Harris, D.R., Muenz, L. and Ellen, J. (2009) *Patient-related Risks for Non-adherence to ART among HIV-infected Youth in the United States: A Study of Prevalence and Interactions* *AIDS Patient Care and STDs* Volume 23 Number 3: 185-194 [C6](#)

²⁷⁹ Adherence self-efficacy is the belief in one's own competence to adhere to the required treatment schedules.

²⁸⁰ Outcome expectancy is the belief that adhering to the treatment will produced the desired results/outcomes.

²⁸¹ Including lack of health insurance; not being in school; homelessness and being in a detention facility.

²⁸² Nachega, J.B., Hislop, M., Nguyen, H., Dowdy, D.W., Chaisson, R.E., Regensberg, L., Cotton, M. and Maartens, G. (2009) ART Adherence, *Virologic and Immunologic Outcomes in Adolescents Compared with Adults in Southern Africa* *J Acquir Immune Defic Syndr* 2009;51:65–71 [C6](#)

²⁸³ Simoni, J.M., Montgomery, A., Martin, E., New, M., Demas, P.A. and Rana, S. (2007) *Adherence to ART for Pediatric HIV Infection: A Qualitative Systematic Review with Recommendations for Research and Clinical Management* *Pediatrics* 2007; 119:e1371 [C8](#)

²⁸⁴ Vreeman, R.C., Wiehe, S.E., Pearce, E.C. and Nyandiko, W.M. (2008) *A Systematic Review of Pediatric Adherence to ART in Low- and Middle-Income Countries* *Pediatric Infectious Diseases Journal* Volume 27 Number 8 [C8](#)

Table 9: Assessment of methods for measuring ART adherence in children²⁸³

Method	Pros	Cons
Reports from patient, caregiver, provider	Least expensive Most widely used Studies in adults demonstrate correlation with viral load	Child may have multiple caregivers Subject to child's cognitive abilities and developmental level Overestimates adherence Social desirability bias Recall bias
Pill counts		Less applicable to paediatric formulations
Pharmacy refill data		Subject to pharmacist practice
Viral load		Affected by other factors, e.g. drug resistance
Electronic drug monitor	Regarded as 'gold standard' Provides data on timing and patterns of non-adherence	Subject to non-use High cost Does not work for some paediatric formulations or pre-packaged pill boxes
Measuring blood drug levels		Expensive Individual variations in metabolism Only provides information on recent practice Lack of information on pharmacokinetics and pharmacodynamics of infant formulations

130. The uncontrolled studies that evaluated issues relating to ART access and adherence among children in specific countries were:

- A qualitative study in Ethiopia published in the Journal of Social Aspects of AIDS in 2009²⁸⁵. Identified barriers to adherence included heavy pill burden, fear of stigma and discrimination, cost and access to transportation, lack of understanding of the benefits of the medication, economic problems in the household and lack of nutritional support
- A retrospective cohort study in Mozambique published in JAIDS in 2011²⁸⁶. This study showed that only one quarter of women receiving PMTCT services returned for early infant diagnosis (EID) of HIV. Factors positively associated with follow-up for early infant diagnosis were larger household size, independent maternal source of income, maternal receipt of ART and, paradoxically, greater distance from the hospital. The authors note that *'the paradoxical association between greater distance and higher EID follow-up likelihood in our study may reflect a selection bias of women who have already overcome the challenge of distance as well as decreased fear of social stigma when seeking HIV care outside one's own community.'*

²⁸⁵ Biadgilign, S., Deribew, A., Amberbir, A. and Deribe, K. (2009) *Barriers and Facilitators to Antiretroviral Medication Adherence among HIV-infected Paediatric Patients in Ethiopia: A Qualitative Study* Journal of Social Aspects of AIDS Vol 6 No 4 [C6](#)

²⁸⁶ Cook, R.E., Ciampa, P.J., Sidat, M., Blevins, M., Burlison, J., Davidson, M.A., Arroz, J.A., Vergara, V.E., Vermund, S.H. and Moon, T.D. (2011) *Predictors of Successful Early Infant Diagnosis of HIV in a Rural District Hospital in Zambezia, Mozambique* JAIDS 2011;56:e104-e109 [C6](#)

- A prospective, observational study in Nigeria presented as a poster at IAS 2011²⁸⁷. This used a medication event monitoring system to assess adherence. This showed a decline in adherence in the second month of treatment as compared to the first. This measure of adherence correlated with viral load. This was not the case for other measures of adherence such as pill count or refill history. Caregiver reports considerably overestimate adherence.
- A cross-sectional study in Zambia published in BMC Infectious Diseases in 2009²⁸⁸. This study focused on identifying the barriers to children receiving ART in rural Zambia. Barriers identified included insufficient money, lack of transportation and roads in poor condition. Almost all children (91%) travelled for more than an hour to reach the clinic and more than one quarter (26%) travelled for more than five hours. In addition, the same authors published a cohort study in PLoS ONE in 2011²⁸⁹ which identified risk factors for children dying prior to starting ART. Factors associated with mortality included younger age, anaemia and lower weight-for-age z-score at study enrolment.

Use of cell phones to promote adherence

131. Documents reviewed included a randomised controlled trial, a systematic review and two uncontrolled studies focused on the use of cell phones to promote ART adherence. A proof of concept study was published in AIDS in 2006²⁹⁰. In 2010, a feasibility study was published in AIDS Patient Care and STDs²⁹¹, a systematic review in Studies in Health Technology and Informatics²⁹² and a randomised controlled trial in the Lancet²⁹³. The proof of concept study in Kenya demonstrated that most people (89%) had access to cell phones but very few (12%) had ever been contacted by cell phone for health care purposes. More than half (54%) of people reported being comfortable receiving HIV-related information by phone. The feasibility study

²⁸⁷ Tepper, V.J., Bachanas, P., Zamani, A.E., Bowman, D.A., Lydecker, A., Yilme, S. and Farley, J.J. (2011) *Evaluation of Adherence to ART in Children in Nigeria* IAS 2011 [A6](#)

²⁸⁸ Van Dijk, J.H., Sutcliffe, C.G., Munsanje, B., Hamangaba, F., Thuma, P.E. and Moss, W.J. (2009) *Barriers to the Care of HIV-Infected Children in Rural Zambia: A Cross-Sectional Analysis* BMC Infectious Diseases 2009; 9: 169 [A6](#)

²⁸⁹ Sutcliffe, C.G., Van Dijk, J.H., Munsanje, B., Hamangaba, F., Siniwyaanzi, P., Thuma, P.E. and Moss, W.J. (2011) *Risk Factors for Pre-Treatment Mortality among HIV-Infected Children in Rural Zambia: A Cohort Study* PLoS ONE 6(12): e29294. [A6](#)

²⁹⁰ Lester, R. T., Gelmon, L. and Plummer, F.A. (2006) *Cell Phones: Tightening the Communication Gap in Resource-Limited ARV Programmes* AIDS 2006 Nov 14;20(17):2242-4. [A6](#)

²⁹¹ Crankshaw, T., Corless, I.B., Giddy, J., Nicholas, P.K., Eichbaum, Q. And Butler, L.M. (2010) *Exploring the Patterns of Use and the Feasibility of Using Cellular Phones for Clinic Appointment Reminders and Adherence Messages in an ART Clinic, Durban, South Africa* AIDS Patient Care and STDs, Volume 24, Number 11 [A6](#)

²⁹² Bahadur, K-C.M. and Murray, P.J. (2010) *Cell Phone SMS for HIV/AIDS in South Africa: A Literature Review* Stud Health Technol Inform. 2010;160(Pt 1):530-4 [A8](#)

²⁹³ Lester, R. T., Ritvo, P., Mills, E.J., Kariri, A., Karanja, S., Chung, M.H., Jack, W., Habyarimana, J., Sadatsafavi, M., Najafzadeh, M., Marra, C. A., Estambale, B., Ngugi, E., Ball, T.B., Thabane, L., Gelmon, L.J., Kimani, J., Ackers, M. and Plummer, F.A. (2010) *Effects of a Mobile Phone Short Message Service on ART Adherence in Kenya (WeTel Kenya 1): A Randomised Trial* Lancet 2010; 376:1838-45 [A10](#)

from South Africa showed that almost all people were willing for the clinic to contact them by phone (99%) or text (96%). The systematic review, focused on South Africa, considered evidence from 28 papers. It concluded that cell phones can improve service delivery by providing appointment reminders and improving communication between patients and health staff. The randomised controlled trial from Kenya demonstrated that receiving a weekly SMS message from a clinic nurse resulted in better ART adherence and improved virologic suppression.

Resistance to ART

132. Documents reviewed included two uncontrolled studies focused on issues of ART drug resistance. A study, published in BMC Infectious Diseases in 2009²⁹⁴, measured viral load of all adults who had completed at least six months of first-line ART in a hospital in rural Tanzania. Genotypic resistance was determined in all patients with a viral load >1000 copies/ml. Rates of virological suppression (<400 copies/ml) were high (88.2%). However, prevalence of one clinically-significant resistance mutation rose from 3.9% among those on ART for one year to 16.7% for those on ART for three years. Rates of dual-class resistance, i.e. resistance to both NRTIs and NNRTIs, were high.
133. A study, published in JAIDS in 2011²⁹⁵, examined the issue of early virological failure and drug resistance in Ugandan children. Early virological failure, defined as a viral load >400 copies/ml after six months of ART, was identified in 16/120 (13%) children. It was associated with ARV-resistance mutations. The paper concludes that '*a significant portion of HIV-infected African children experience early virological failure that would be undetected using CD4/clinical monitoring.*'

Treatment of malaria for children exposed to HIV

134. Documents reviewed included three randomised controlled studies focused on treatment of malaria in children exposed to HIV. A study, published in Malaria Journal in 2009²⁹⁶, concluded that both Artemether-Lumefantrine and Dihydroartemisinin-Piperaquine were safe and well-tolerated among young HIV-infected and HIV-uninfected children in Uganda. In 2012, a study, published in Clinical Infectious Diseases²⁹⁷, demonstrated that Artemether-lumefantrine and

²⁹⁴ Johannessen, A., Naman, E., Kivuyo, S.L., Kasubi, M.J., Holberg-Petersen, M., Matee, M.I., Gundersen, S.G. and Bruun, J.N. (2009) *Virological Efficacy and Emergence of Drug Resistance in Adults on ART in Rural Tanzania* BMC Infectious Diseases 2009, 9:108 [C6](#)

²⁹⁵ Ruel, T.D., Kamya, M.R., Li, P., Pasutti, W., Charlebois, E.D., Liegler, T., Dorsey, G., Rosenthal, P. J., Havlir, D.V., Wong, J.K. and Achan, J. (2011) *Early Virological Failure and the Development of Antiretroviral Drug Resistance Mutations in HIV-infected Ugandan Children* JAIDS 2011 January 1; 56(1): 44–50 [C6](#)

²⁹⁶ Katrack, S., Gasasira, A., Arinaitwe, E., Kakuru, A., Wanzira, H., Bigira, V., Sandison, T.G., Homsy, J., Tappero, J.W., Kamya, M.R. and Dorsey, G. (2009) *Safety and Tolerability of Artemether-Lumefantrine versus Dihydroartemisinin-Piperaquine for Malaria in Young HIV-infected and -uninfected Children* Malaria Journal 2009; 8:272 [A10](#)

²⁹⁷ Arinaitwe, E., Sandison, T.G., Wanzira, H., Kakuru, A., Homsy, J., Kalamya, J., Kamya, M.R., Vora, N., Greenhouse, B., Rosenthal, P.J., Tappero, J. and Dorsey, G. (2012) *Artemether-Lumefantrine*

dihydroartemisinin-piperaquine were both efficacious and had similar long-term effects on the risk of recurrent malaria.

135. A study, published in the BMJ in 2011²⁹⁸, demonstrated that Co-trimoxazole was effective in preventing malaria among HIV-exposed children in rural Uganda. Standard clinical practice was to provide Co-trimoxazole to all HIV-exposed children until they stopped breastfeeding and had an HIV diagnosis. Those found to be HIV positive continued with Co-trimoxazole while it was discontinued for those found to be HIV negative. This study compared this standard practice with continuation of Co-trimoxazole among those children found to be HIV negative until the age of two years. Co-trimoxazole prophylaxis resulted in a 39% reduction in malaria incidence. However, there were no differences in the incidence of complicated, hospitalisation or deaths. The conclusions of the study are highlighted in Box 16.

Box 16: Comments on chemoprophylaxis for malaria (from Sandison et al., 2011)

Our data add to the growing number of malaria chemoprevention trials, which are trying to discern the best drug, dose, treatment frequency, and treatment duration for children living in areas of differing malaria transmission intensities. The primary relevance of our findings is that co-trimoxazole prophylaxis afforded significant protection against malaria in a setting of highly endemic and highly resistant malaria. Currently, co-trimoxazole is used as prophylaxis in HIV exposed children to prevent opportunistic infections such as toxoplasmosis and pneumocystis. Given the increasing interest in chemoprevention of malaria, we looked at continuing co-trimoxazole prophylaxis among those children who did not seroconvert during breast feeding, and we found that continuing co-trimoxazole helps to prevent malaria in this population. Our study also provides insight into providing malaria chemoprevention to all children, regardless of HIV status or exposure. It is premature to conclude whether co-trimoxazole should be recommended for HIV exposed children testing HIV negative after cessation of breast feeding. Differences in malaria transmission intensity and prevalence of antifolate resistance could affect the protective efficacy of co-trimoxazole prophylaxis at different sites. Furthermore, questions remain over the effect of co-trimoxazole use on the continued development of antifolate resistance and prevention of acquisition of natural antimalarial immunity, which may result in an increased rebound incidence of malaria upon cessation of prophylaxis. To help answer some of these questions, we are following our cohort to 5 years of age to examine the continued protective efficacy of co-trimoxazole against malaria and to evaluate rebound effects after withdrawal of co-trimoxazole. The results of this and other studies should better inform the use of co-trimoxazole prophylaxis in HIV exposed infants in areas with endemic malaria.

versus Dihydroartemisinin-Piperaquine for Falciparum Malaria: A Longitudinal, Randomized Trial in Young Ugandan Children Clinical Infectious Diseases 2009; 49:1629–37 [A10](#)

²⁹⁸ Sandison, T.G., Homsy, J., Arinaitwe, E., Wanzira, H., Kakuru, A., Bigira, V., Kalamya, J., Vora, N., Kublin, J., Kamya, M.R., Dorsey, G. and Tappero, J.W. (2011) Protective Efficacy of Co-trimoxazole Prophylaxis against Malaria in HIV Exposed Children in Rural Uganda: a Randomised Clinical Trial BMJ 2011:342d1617 [A10](#)

Screening for cryptococcus

136. Documents reviewed included one uncontrolled study, published in Journal of the International AIDS Society in 2011²⁹⁹, on screening HIV-infected inpatients for cryptococcus in Tanzania. A total of 333 people with HIV were screened for cryptococcus using a serum antigen assay. 15 patients were diagnosed with cryptococcal meningitis, of whom 10 died. In the absence of a control group, it is difficult to determine what this study tells us. All those with cryptococcal meningitis had at least two of four classic symptoms and signs of meningitis, namely fever, headache, neck stiffness and altered mental status. As a result, it is likely that these could have been diagnosed without screening all patients. Given the very high death rate, it seems unlikely that screening inpatients is resulting in earlier diagnosis and reduced mortality.

Tuberculosis

137. Documents reviewed included two uncontrolled studies related to TB diagnosis among people living with HIV and two uncontrolled studies relating to TB occurring among people on ART. One study, published in the New England Journal of Medicine in 2010³⁰⁰, collected data from eight clinics in Cambodia, Thailand and Vietnam. It showed that having a cough for 2-3 weeks was only 22-33% sensitive for diagnosing TB. However, if a person had any of the following – cough of any duration; fever of any duration; night sweats lasting 3 or more weeks in the last four weeks, this was reported to be 93% sensitive and 36% specific for the diagnosis of TB. Confirmation of diagnosis required mycobacterial culture in most cases.
138. Another study, published in PLoS ONE in 2011³⁰¹, evaluated the 2007 WHO guideline to improve the diagnosis of TB in ambulatory HIV positive adults in South East Asia. A limitation of this study is that it was financed by WHO (see p42). The conclusions of the study in terms of screening symptoms were the same as for the algorithm proposed in the study above³⁰⁰. Although mycobacterial culture was recognised as the best method of diagnosis, an alternative approach of two sputum smears, chest X-ray and CD4 count detected most cases of TB. The authors commented that more research is needed to determine if this approach could be used to exclude TB in people living with HIV and as a basis for starting treatment.

²⁹⁹ Wajanga, B.M.K., Kalluvya, S., Downs, J.A., Johnson, W.D., Fitzgerald, D.W. and Peck, R.N. (2011) *Universal Screening of Tanzanian HIV-infected Adult Inpatients with the Serum Cryptococcal Antigen to Improve Diagnosis and Reduce Mortality: An Operational Study* Journal of the International AIDS Society 2011, 14:48 [C6](#)

³⁰⁰ Cain, K.P., McCarthy, K.D., Heilig, C.M., Monkongdee, P., Tasaneeyapan, T., Kanara, N., Kimerling, M.E., Chheng, P., Thai, S., Sar, B., Phanuphak, P., Teeratakulpisarn, N., Phanuphak, N., Dung, N.H., Quy, H.T., Thai, L.H., and Varma, J.K. (2010) *An Algorithm for TB Screening and Diagnosis in People with HIV* NEJM 362:8 [C6](#)

³⁰¹ Koole, O., Thai, S., Khun, K.E., Pe, R., Van Griensven, J., Apers, L., Van den Ende, J., Mao, T.E. and Lynen, L. (2011) *Evaluation of the 2007 WHO Guideline to Improve the Diagnosis of TB in Ambulatory HIV-Positive Adults* PLoS ONE 6(4): e18502 [C6](#)

139. One cohort study, published in *Clinical and Developmental Immunology* in 2011³⁰², documented the occurrence of TB in a cohort of HIV-infected patients in Uganda starting ART. Another cohort study, published in *JAIDS* in 2011³⁰³, examined incidence, risk factors and prevention strategies for TB in patients receiving ART in South Africa. The Ugandan study found low rates (8/219) of ART-associated tuberculosis, presumably as a result of pre-ART TB screening. Factors associated with developing TB while on ART included a body mass index < 18.5kg/m² and a C reactive protein >5mg/l. The South African study found a 10% risk of developing TB in the first four years of ART. Low baseline CD4 count, anaemia and low body mass index were the strongest risk factors for developing TB during the first six months of ART. Low updated CD4 count, low updated body mass index, anaemia and high viral load were strong risk factors for developing TB after six months of ART.

Effects of financial crisis on HIV treatment and prevention programmes

140. Documents reviewed included one modelling study, one uncontrolled study and one 'classic' programme/project evaluation focused on the effect of the current global financial crisis on HIV treatment and prevention programmes, particularly those delivering ART. The 'classic' evaluation, conducted by UNAIDS and the World Bank documents perspectives from UN and World Bank staff from 71 countries³⁰⁴. The uncontrolled study is essentially a follow-up to this evaluation. It also included views of donors, a survey of civil society organisations and 14 case studies³⁰⁵. These two studies are largely based on opinions on impact rather than documented effects, e.g. in terms of slowing of rate of ART expansion. The modelling study presents a model focused on ART in South Africa³⁰⁶.

HIV treatment projects/programmes

141. Documents reviewed included one 'classic' evaluation of an ART programme in a province of China³⁰⁷. Lessons are presented which are relevant not only to ART in that province but also to other provinces of China and beyond. Examples of such lessons include:

- The value of counselling, social support, close follow-up and patient-friendly drugs in improving adherence.
- Experience that those from marginalised groups can be treated successfully and can adhere to a treatment regime.

³⁰² Worodria, W., Massinga-Loembe, M., Mayanja-Kizza, H., Namaganda, J., Kambugu, A., Manabe, Y.C., Kestens, L. and Colebunders, R. (2011) *ART-associated TB in a Prospective Cohort of HIV-infected Patients Starting ART* *Clinical and Developmental Immunology*, Volume 2011 [C6](#)

³⁰³ Van Rie, A., Weistreich, D. and Sanne, I. (2011) *TB in Patients Receiving ART: Incidence, Risk Factors and Prevention Strategies* *JAIDS* 2011; 56:349-355 [C6](#)

³⁰⁴ UNAIDS and the World Bank (2009) *The Global Economic Crisis and HIV Prevention and Treatment Programmes: Vulnerabilities and Impact* [A5](#)

³⁰⁵ UNAIDS and the World Bank (2009) *Update on the Impact of the Economic Crisis: HIV Prevention and Treatment Programmes* [A6](#)

³⁰⁶ Barnighausen, T., Bloom, D. and Humair, S. (2009) *The Impact of the Global Financial Crisis on ART in South Africa: The Effect of Feedback* [A7](#)

³⁰⁷ MSF and Guangxi CDC (undated) *Joint Review of Guangxi CDC/MSF-F HIV Project* [A5](#)

Care and Support

Addressing the needs of women living with HIV

142. Documents reviewed included two uncontrolled studies from Vietnam focused on addressing the needs of women living with HIV. One study explored this issue in general³⁰⁸ and concluded that a range of programme activities, including HIV, AIDS and SRH services and gender-based violence, legal aid and microcredit programmes resulted in improved knowledge, service use and referral to services. The major benefit was reported to be knowledge of services. However, these conclusions go well beyond the evidence presented, particularly in the absence of a robust counterfactual. The study is also weakened by focusing on relatively low level results, such as knowledge of services, in the absence of any explicit programme logic or theory of change which links this to higher level outcomes, such as improved quality of life.
143. The other study, presented as a poster in an AIDS conference, focused on issues of sexual health decision-making³⁰⁹. This study showed that significant numbers of women with HIV were advised either not to have children (41%) or to have an abortion (13%). In many cases, this advice came from health workers.

Care and support projects/programmes

144. Documents reviewed included one uncontrolled study of 60 PEPFAR-funded care and support in Uganda³¹⁰ and one 'classic' project/programme evaluation of the District Response Initiative to integrate care and support of those infected and affected by HIV in Ghana³¹¹. The Ugandan study was largely descriptive and catalogued the types of facility; the staff characteristics; the components of care offered; the availability of medicines; and the use of medical records. In Ghana, the achievements of the Dutch-financed District Response Initiative are described and documented.

³⁰⁸ CGHD, COHED and Life Center (2010) *Engendering the Care and Treatment Response: Addressing the Needs of Women Living with HIV in Vietnam* [C6](#)

³⁰⁹ Messersmith, L., Semrau, K., Tran, L.A., Nguyen, N.T., Dao, M.H., Eifler, K. and Sabin, L. (2010) *Contested Sexual and Reproductive Rights of Women Living with HIV in Viet Nam: Experience with Health Care Providers and Family Members in Sexual Health Decision-making* AIDS 2010, WEPE0636 [C6](#)

³¹⁰ Harding, R., Simms, V., Penfold, S., Namisango, E., Nkurunziza, G.B., Kwebiha, C.N., Teera-Ssentoogo, J., Downing, J., Pwell, R.A., Mwangi-Powell, F. and Higginson, I.J. (2009) *PEPFAR Public Health Evaluation Care and Support: Summary: Phase 1 Uganda* [C6](#)

³¹¹ Simwanza, A. (2005) *Scaling up the District Response Initiative to integrate Care and Support of those Infected and Affected by HIV/AIDS in Ghana: Final Report on Mid-Term Review* [C5](#)

Other

Previous efforts to synthesise lessons from HIV-related evaluations

145. Documents reviewed included one systematic review of evaluations of HIV/AIDS assistance, conducted by DANIDA in 2008 (see Box 7)³¹². Evidence was reviewed across a wide range of topics, including prevention (see p51), treatment and other topics. These other topics are reviewed here (see Table 10).

Table 10: Evidence from HIV-related evaluations as assessed by DANIDA synthesis in 2008: Other topics³¹²

Thematic Area	Evidence from donor-supported evaluations and other literature
Orphans and vulnerable children	Only one evaluation focused on sustainability of NGO provision which concluded positively about their sustainability.
Workplace interventions	Most studies based on self-reporting from companies. Lack of systematic and solid evidence.
Human rights	Not possible to identify substantive evaluations or studies to assess this important component.
Economic impact mitigation	Many studies describe the economic impact of HIV/AIDS, and interventions for example in the agricultural sector have also aimed at mitigating these, but these interventions have not been the subject of substantive evaluations or studies.
Donor coordination and collaboration	It has unfortunately not been possible to identify evaluations of attempts to generate and/or forward donor coordination and collaboration. The only evaluation addressing an aspect related to cross-agency collaboration is SIDA.

146. In general, the review concluded that *‘despite the importance of impact mitigation surprisingly little in terms of evaluations or studies trying to synthesise more broad-based insight was found.’* The review identified some common problems with donor HIV evaluations. These have been summarised in the section on prevention (p51).

Community responses to HIV

147. Documents reviewed included three related to evaluations of community responses to HIV conducted by the World Bank, DFID and the UK Consortium on AIDS and International Development. The primary objective of this effort was to build a more robust pool of evidence on the impact and added value of community-based activities and programs in a cluster of countries, with a strong concentration on the Sub-Saharan African Region. The documents reviewed included:

- An operational framework and typology for analysing community responses to HIV developed through a desk study/literature review³¹³.

³¹² Kovsted, J. and Schleimann, F. (2008) *Synthesis of Evaluations of HIV/AIDS Assistance* [C8](#)

³¹³ Rodriguez-Garcia, R., Bonnel, R., N'Jie, N., Olivier, J., Pascual, F.B. and Wodon, Q. (2011) *Analyzing Community Responses to HIV and AIDS: Operational Framework and Typology*: Policy Research Working Paper 5532 [A2](#)

- A description of funding mechanisms for community responses to HIV based on information provided by the most important donors; four country funding profiles; evaluation studies in two countries; surveys of civil society organisations; and literature review³¹⁴.
- A description of the various evaluations included in this series (see Figure 8, p38).

148. These evaluations conclude that community responses to HIV are extremely diverse. The typology proposed classifies these using six characteristics:

- The types of organisations and structures implementing the response
- The types of activities or services implemented and the beneficiaries of these
- The actors involved in and driving community responses
- The contextual factors that influence community responses
- The extent of community involvement in the response
- The extent to which community responses involve wider partnerships and collaboration.

149. Substantial funding is being provided to community responses to HIV. These evaluations estimated that four major donors (PEPFAR, the Global Fund, the World Bank and DFID) provided US\$590m per year to civil society organisations between 2003 and 2009. However, the amounts received by individual civil society organisations were relatively small. For example, data from Kenya and Nigeria showed that the annual funding received by community based organisations (CBOs) was around US\$10,000. Overall, large national and international NGOs may receive donor funding directly but more indirect, national funding channels have become important for smaller NGOs and CBOs. Overall, however, civil society organisations remain very dependent on donor funding for their activities.

150. Achievements in the countries that were the subject of an evaluation varied depending on specific circumstances (see Figure 18)³¹⁵. For example, evaluations demonstrated increased uptake of HIV testing and counselling in Burkina Faso and Senegal; increased support to OVC, PMTCT and ART services in Lesotho and increased ART adherence in South Africa. In some cases, large NGOs were able to deliver results because they had access to substantial funding. They were able to disburse funds quickly in order to scale up operations, and they provided an innovative approach. In other cases, small NGOs/CBOs were able to reach neglected populations and provide them with services. But there were also several examples where the interventions of NGOs/CBOs did not generate tangible results, especially when they implemented interventions that had been shown to be ineffective, where they duplicated services already provided by government or where they provided services at a scale that was too small to be cost-effective.

³¹⁴ Bonnel, R., Rodriguez-Garcia, R., Olivier, J., Wodon, Q., McPherson, S., Orr, K. and Ross, J. (2012) *Funding Mechanisms for the Community Response to HIV and AIDS* [A5](#)

³¹⁵ UK Consortium on AIDS and International Development (2011) *Evaluation of the Community Response to HIV and AIDS: Insights* [A10](#)

Figure 18: Overview of observed effects on HIV-related outcomes by country³¹⁵

	Effect on knowledge, attitudes, perceptions and behaviour	Effect on service access and utilisation	Effect on social transformation
Burkina Faso	<ul style="list-style-type: none"> Better HIV knowledge Increased condom use with first or second partner 	<ul style="list-style-type: none"> Increased uptake of HCT 	<ul style="list-style-type: none"> Increased individual stigma Decreased collective stigma
Kenya	<ul style="list-style-type: none"> Increased HIV knowledge Higher HIV risk perception Increased condom use 	N/A	<ul style="list-style-type: none"> Increased awareness of child rights Increased political participation
Lesotho	<ul style="list-style-type: none"> Consistent condom use with non-regular partners 	<ul style="list-style-type: none"> Increased support to OVC, PMTCT, ART 	<ul style="list-style-type: none"> Positive changes related to gender roles Decreased stigma related to HIV testing
Senegal	N/A	<ul style="list-style-type: none"> Increased use of HCT, post-test counselling Increased proportion of partners of PLHIV seeking HCT 	N/A
South Africa	N/A	<ul style="list-style-type: none"> Increased ART adherence 	N/A
Source: World Bank, Evaluation of the Community Response to HIV and AIDS, 2011.			

151. In addition, documents reviewed include a literature review, published in the International Journal of Epidemiology in 2010, focused on the role of civil society organisations in the national response to HIV in China³¹⁶. Although this review was largely descriptive and contained little methodological detail, it did document :

- The extent to which civil society organisations are now involved in nearly all aspects of HIV-related prevention, treatment and care
- Examples of civil society organisations considered to be implementing effective programmes
- Areas in which civil society organisations were considered to have had an impact, e.g. on increasing ART adherence and promoting HIV testing among hard-to-reach groups
- Legal and other obstacles faced by civil society organisations. The main challenges faced by civil society organisations in China were identified as registration, capacity and long-term financial support.

National, sub-national and other HIV programmes

152. Documents reviewed included a large number of evaluations of HIV programmes (n=21). These included:

- National and sub-national responses in Afghanistan³¹⁷, Botswana³¹⁸, China³¹⁹, Dominican Republic³²⁰, Macedonia³²¹, Nepal^{322,323}, Nigeria³²⁴, Sri Lanka³²⁵ and Ukraine³²⁶

³¹⁶ Li, H., Kuo, N.T., Liu, H., Korhonen, C., Pond, E., Guo, H., Smith, L., Xue, H. And Sun, J. (2010) *From Spectators to Implementers: Civil Society Organizations Involved in AIDS Programmes in China* International Journal of Epidemiology 2010 39:ii65-ii71 [A2](#)

³¹⁷ UNODC (2008) *Thematic Evaluation of the Technical Assistance Provided to Afghanistan by the UNODC: Consolidated Evaluation Report* [A5](#)

³¹⁸ JSI (undated) *Botswana Evaluation of the African Comprehensive HIV/AIDS Partnership (ACHAP)*

[C5](#)

³¹⁹ Li, J., Ha, T.H., Zhang, C. and Liu, H. (2010) *The Chinese Government's Response to Drug Use and HIV/AIDS: A Review of Policies and Programs* Harm Reduction Journal 2010, 7:4 [A5](#)

- An evaluation of HIV surveillance in China³²⁷
- An evaluation of the regional programme of the SADC Parliamentary
- Evaluations of specific donor initiatives, such as SIDA support to the Eastern and Southern African regional office of UNICEF³²⁸, Global Fund support to the Philippines³²⁹ and the work of the Clinton HIV/AIDS Initiative in Indonesia³³⁰
- Evaluations of international NGOs, such as HIVOS³³¹ and the work of the International HIV/AIDS Alliance in Africa³³²
- Evaluations of the work of multilateral agencies, such as the UNAIDS inter-country team for Western and Central Africa³³³, UNAIDS in Indonesia³³⁴ and UNDP in Tajikistan³³⁵
- Evaluations of particular projects, such as the AIDS Integrated Model District Programme (AIM) in Uganda³³⁶

153. Almost all of these (n=19; 91%) were 'classic' programme/project evaluations. There was one study, in Nigeria, based on data triangulation³²⁴. However, it was difficult to fully determine the quality of this work based on the ICASA abstract reviewed. However, it is of concern that sweeping conclusions were made from minimal data. One of the evaluations attempted to compare data

³²⁰ PAHO and UNICEF (2008) *Evaluation of the National Health System Response to HIV in the Dominican Republic: A Political, Managerial and Technical Tool for Progressing Towards Universal Access* [A5](#)

³²¹ Elliott, L. (2010) *Report of the Mid-Term Review of the National HIV/AIDS Strategy 2007-2011* Former Yugoslav Republic of Macedonia [A5](#)

³²² Sadanandan, R., De Lind van Wijngaarden, J.W., Hutter, N. and Kumar, P. (2007) *Review of the UNDP/DFID Support to the National HIV/AIDS Response in Nepal* [A5](#)

³²³ Molldrem, V., Justice, J., Sharma, M. and Thapa, P. (2010) *Evaluation of 'Advancing Surveillance, Policies, Prevention, Care and Support to Fight HIV/AIDS in Nepal(ASHA) Project'* [C5](#)

³²⁴ Anosike, A.O., Adebunmi, A.A. and Agbo, F.A. (2011) *Analysis of the Status of the HIV/AIDS Epidemic in Abia State, Nigeria* ICASA CD020 [A3](#)

³²⁵ WHO, Ministry of Healthcare and Nutrition and UNAIDS (2006) *Review of the National Response to STIs and HIV/AIDS in Sri Lanka* [A5](#)

³²⁶ Elo, O. (2009) *Comprehensive External Evaluation of the National AIDS Response in Ukraine* [A5](#)

³²⁷ Shah, N. (2009) *A Comprehensive Evaluation of a HIV/AIDS Surveillance System Guangdong Province, China, 2007* [A5](#)

³²⁸ Sinclair, R.N. and Aggarwal, N. (2008) *SIDA's Support to the Eastern and Southern African Regional Office of UNICEF: Mainstreaming a Rights Based Approach to Safeguard the Rights of Children Orphaned by HIV/AIDS* [A5](#)

³²⁹ Chaudhuri, A., Xiaochun, W., Salva, M., Belimac, G. and Mosende, Z. (2008) *External Evaluation of Global Fund Round 5: HIV Component* [A5](#)

³³⁰ IPR Team (2009) *Independent Progress Report: Clinton HIV/AIDS Initiative in Indonesia* [C5](#)

³³¹ Phlix, G., Aantjes, C., Jurgens, E., Motihar, R. and Lopez, R. (2010) *Evaluation of the HIV and AIDS Program Implemented by HIVOS in the Period 2000-2009* [C5](#)

³³² Khan, M. and Brady, R. (2011) *Evaluation of the International HIV/AIDS Alliance's Africa Regional Programme (ARP) Phase 2* [B5](#)

³³³ Whitcomb, G. (2001) *Evaluation of the UNAIDS Inter-Country Team for Western and Central Africa* [A5](#)

³³⁴ Jansen, P.L., Petersen, G. and Darmawi, V. (2008) *UNAIDS Second Independent Evaluation: 2002-2008 Country Visit to Indonesia: Summary Report* [C5](#)

³³⁵ Hsu, L.-N., Dodarbekov, M., Rakhimovna, S., Sinavbarov, M., Nikolaevna, B.T. and Trupanova, B. (2007) *Outcome Evaluation of HIV Programme of UNDP Tajikistan* [C5](#)

³³⁶ Blue, R., Wandera, A., Balyaku, A., Turinde, A., Chono, R.O., Walusimbi, R. and Kamukama, R. (2007) *AIM Project Evaluation* [C9](#)

from six different districts³³⁶. However, it is unclear to what extent these comparisons are valid (see Table 3, p33).

154. These evaluations include a wide range of conclusions and recommendations on how to improve delivery of HIV programmes, particularly of the specific programmes evaluated.

Policies, strategies and commitments

155. Documents reviewed included three country-generated reports and one 'classic' evaluation related to reviewing progress in implementing particular policies, strategies and commitments. These included:

- A report on progress towards achieving universal access in the health sector³³⁷
- A report on progress in implementing the Three Ones³³⁸
- A report on progress in implementing the Dublin Declaration on HIV in Europe and Central Asia³³⁹
- A report on progress in implementing the European Commission's HIV Communication and Action Plan³⁴⁰

156. In addition, there was an uncontrolled study to evaluate training to engender a gendered and human rights response in Vietnam³⁴¹. This involved collecting data in three rounds over 12 months. The study concluded that *'after policy makers participated in the training, they showed a marked increase in attention to gender and human rights issues in their demonstration of knowledge, attitudes and actions to integrate these issues into policies and programs.'*

157. There was also a literature review which examined the politics of policy making³⁴². The key focus of this work was to understand how and why discourses around HIV emerge and how they frame, support or undermine evidence-informed policy.

³³⁷ WHO, UNAIDS and UNICEF (2010) *Towards Universal Access: Scaling Up Priority HIV/AIDS Interventions in the Health Sector Progress Report 2010* [C4](#)

³³⁸ UNAIDS (2005) *The Three Ones in Action: Where We Are and Where We Go from Here* [C4](#)

³³⁹ ECDC (2010) *Implementing the Dublin Declaration on Partnership to Fight HIV/AIDS in Europe and Central Asia: 2010 Progress Report* [A4](#)

³⁴⁰ ECDC (2012) *Monitoring Implementation of the European Commission Communication and Action Plan to Combat HIV/AIDS in the EU and Neighbouring Countries 2009-2013* [B5](#)

³⁴¹ Messersmith, L., Bich, T.H., Gruskin, S., Anh, L.V., Tien, T.Q., Hong, K.T., Thai, C.D., Hai, N.T.T., Montagu, D., La, H., Eifler, K., Tuchman, J. and Smith, A. (undated) *Making AIDS Policy Sexy: Evaluation of AIDS Policy Training to Engender a Gendered and Human Rights Response in Vietnam* [C6](#)

³⁴² Dickinson, C. and Buse, K. (2008) *Understanding the Politics of National HIV Policies: The Roles of Institutions, Interests and Ideas* [C2](#)

Performance-based contracting

158. Documents reviewed included one uncontrolled study, published in Health Services Research in 2003, which explored the issues of performance-based contracting in a US drug treatment programme³⁴³. The conclusions of this study were that performance-based contracting resulted in reduced numbers of clients classified as 'most severe' receiving drug treatment.

Orphans and vulnerable children

159. Documents reviewed included one uncontrolled study, five 'classic' programme/project evaluations and one literature review focused on services for orphans and vulnerable children.
160. The literature review, conducted in 2008³⁴⁴ concluded that there was little evidence to inform policymakers and donors about whether and how their investments are improving the lives of vulnerable children and meeting key benchmarks such as the Millennium Development Goals. Some evidence was presented for the importance of programmes developing strong links with households and communities through personal visits and community participation. However evaluation evidence was undermined by variable methods and inconsistent data quality. The evaluation concludes that, *'the evidence base in low prevalence settings is weaker still... Building a sound empirical evidence base to address questions of programme management and policy decision-making remains a key gap. Without a comprehensive body of sound evaluation data, policy makers and donors risk making decisions about the implementation and financing of programmes that have not been proven effective.'*
161. In 2007, UNICEF published a paper on the impact of social cash transfers on children affected by HIV in Malawi, South Africa and Zambia. Although this has been classified as an uncontrolled study for this review, the method is very poorly-described³⁴⁵. It identifies a number of factors which increase the number of people affected by HIV benefiting from social protection programmes including having a low poverty line cut-off; using a high dependency ratio; and targeting households with orphans. Bureaucratic and over-complex application procedures are significant barriers to people affected by HIV accessing support, e.g. in South Africa. Factors affecting the degree of benefit experienced by people affected by HIV, particularly children include the volume of transfers; the degree to which the design of the scheme is child-oriented; who controls the transfers on household level and the availability of complementary social

³⁴³ Shen, Y. (2003) *Selection Incentives in a Performance-Based Contracting System* HSR: Health Services Research 38:2 (April 2003) [C6](#)

³⁴⁴ Schenk, K. (2008) *What have we Learnt? A Review of Evaluation Evidence on Community Interventions Providing Care and Support to Children who have been Orphaned and Rendered Vulnerable* [C2](#)

³⁴⁵ Indeed, there is no real description of method beyond the statement – *'The choice of countries and programmes to be studied and the methodology used had to take time constraints and data availability into account. Where empirical evidence is lacking, the study is based on anecdotal evidence using assumptions and leading to conclusions that are to some extent hypothetical and require further research.'*

services. In general, this study does not recommend additional social protection schemes that exclusively target HIV and AIDS affected households or HIV and AIDS affected children. One exception for this is additional support provided in the case of households with one or more members on ART because of the increased costs they incur to receive ART. A case is made to explore the feasibility of providing a specific cash transfer to meet their ART costs.

162. The 'classic' programme evaluations included:

- Two focused on SIDA support to UNICEF. One focused on support to UNICEF's Southern and Eastern Africa regional office to mainstream a rights-based approach to safeguarding the rights of children orphaned by AIDS³⁴⁶. This concluded that performance in individual countries had been generally satisfactory but the regional focus had been relatively weak. Regional activities were not clear and intended activities did not consistently take place at the regional level. On the other hand, the second focused on UNICEF's child protection/trafficking programme in West Africa³⁴⁷, concluded that the role of the regional office had been 'indispensable' in a particularly complex macro-policy area.
- Two focused on evaluating child support projects in Chikankata, Zambia. In 2002, the evaluation of the Community-Based Orphan Support Programme (CBOSP) and OVC training projects compared progress against recommendations of an earlier evaluation in 1997³⁴⁸. The second was an evaluation of Chikankata's Child Survival Project³⁴⁹. However, the description of method for this evaluation was poor with confusion between describing the method of the evaluation and the method of the project overall. This evaluation concluded that 'the increase in coverage of key child survival indicators was notable' with improvements of 10 percentage points or more in 15/21 indicators. Exclusive breastfeeding among children aged 0-5 months increased from 44% to 85%. The usage of insecticide-treated bed nets rose from 22% to 56%. The evaluation report implies that there is a causal relationship between the project and these findings. However, in the absence of a robust counterfactual, there could be other explanations. The evaluation uses a 'Lives Saved Tool' to claim that the project saved the lives of an estimated 1,097 children under 5 at a cost of US\$1,391 per life saved, US\$46 per DALY averted and an annual cost per beneficiary of US\$7.92. Although such figures are useful for project marketing purposes, they are based on a very large number of

³⁴⁶ Sinclair, R.N. and Aggarwal, N. (2008) *SIDA's Support to the Eastern and Southern African Regional Office of UNICEF: Mainstreaming a Rights Based Approach to Safeguard the Rights of Children Orphaned by HIV/AIDS* [A5](#)

³⁴⁷ FAFO (undated) *Evaluation of UNICEF's SIDA-funded Child Protection/Trafficking Program in West Africa* [A5](#)

³⁴⁸ Mulenga, S. (2002) *Report on the Evaluation of the UNICEF Supported Chikankata CBOSP and OVC Training Projects* [A5](#)

³⁴⁹ Salvation Army World Service Office (2011) Salvation Army/Zambia (TSA), Salvation Army World Service Organization (SAWSO), and TSA Chikankata Health Services *Chikankata Child Survival Project (CCSP), 2005-2010: Final Evaluation Report* [A5](#)

assumptions, some of which are unlikely to be valid, e.g. that all the reported change was due directly to project intervention.

- A participatory review of the STRIVE project in Zimbabwe³⁵⁰ (see Box 9).

CONCLUSIONS

163. This study, and the stocktaking exercise on which it is based, have demonstrated that a significant amount of evidence has been generated through HIV-related evaluations, particularly in the last five years. Despite not being comprehensive, it is striking that this exercise unearthed a much larger body of evidence than a similar exercise conducted by DANIDA in 2008³⁵¹. Reasons for this may include differences in method and inclusion criteria, but may also reflect that there is now more evaluation evidence available than there was in 2008.
164. This study also identified much more evidence than more conventional and focused systematic reviews. Although such reviews are highly regarded, particularly in biomedical circles, the narrowness of their questions and the strictness of their inclusion/exclusion criteria, mean that although large numbers of documents are often included at the start of the review process, very few end up being actually reviewed and included. A great deal of valuable evidence may therefore be lost. This study offers an alternative approach to DFID and others for collecting and presenting evaluation evidence across a broad topic. However, to be of maximal value, such an exercise would need to be done on a regular basis.
165. It is disappointing that the study found very few examples of evaluation evidence being used. Very few management responses were identified. Those that were either appeared to be very defensive or written in very careful language for public view. Evaluations that considered progress against findings of previous evaluations were few and far between.
166. Although the synthesis exercise identified more prevention-related than treatment-related evaluations, it appeared that the latter were easier to identify. This may be because they were particularly likely to be found in peer-reviewed journals. This finding may also explain why there appeared to be more good quality evaluation reports related to treatment than to prevention.
167. Concerns related to evaluation quality were highlighted in the 2008 DANIDA review, particularly in relation to HIV prevention. Many of these concerns still apply, in particular:
- An over-reliance on desk reviews of the available documentation, case studies/field visits and interviews with key stakeholders.

³⁵⁰ McDermott, P., Brakarsh, J., Chigara, P., Cogswell, L., Coombe, C., Himelfarb, T., Loudon, M. and Williamson, J. (2003) *Report on the Mid-Term Review of the STRIVE Project* [C5](#)

³⁵¹ Kovsted, J. and Schleimann, F. (2008) *Synthesis of Evaluations of HIV/AIDS Assistance* [C8](#)

- Failure to establish the baseline prior to intervention
- Failure to collect primary data
- Failure to consider a robust counterfactual
- Insufficient focus on cost, cost effectiveness
- Over-emphasis on achieving outputs and inadequate focus on demonstrating impact

168. There is some evidence that publishing reports in peer-reviewed journals may increase the proportion of good quality articles. However, it does not appear that this approach is that effective in ensuring that poor quality articles are not published. It is of concern that more than one in six of identified documents in peer-reviewed journals were considered poor quality.

169. There is also evidence that although publishing reports in peer-reviewed journals may improve their academic rigour and quality, it may reduce their practical relevance. Fewer articles in peer-reviewed journals had clear recommendations than reports in the grey literature. More rigorous academic studies, such as randomised controlled trials were less likely to have recommendations than 'classic' programme/project evaluations.

170. Although agencies may have measures in place to ensure the independence of their evaluations, these are rarely documented in the reports of specific evaluations. UNODC and SIDA are notable exceptions to this. Although evaluations often cover topics identified by OECD DAC as key evaluation criteria, particularly effectiveness and impact, they are rarely used as ways of organising, structuring or presenting the evaluation. This may be because they are viewed by some evaluators as a Procrustean bed. There is some evidence that issues of efficiency and relevance are considered less in the evaluations reviewed than other criteria.

RECOMMENDATIONS

R1. There is a need for **more evaluation data in some key areas of responses to HIV**. These include care/support and prevention, overall, and behaviour change, in particular.

R2. It is essential that when evaluations are carried out they should be **robust and of good quality**. This means that they should have robust counterfactuals.

R3. In general, **descriptions of evaluation methods should include an assessment of the independence of the evaluation**.

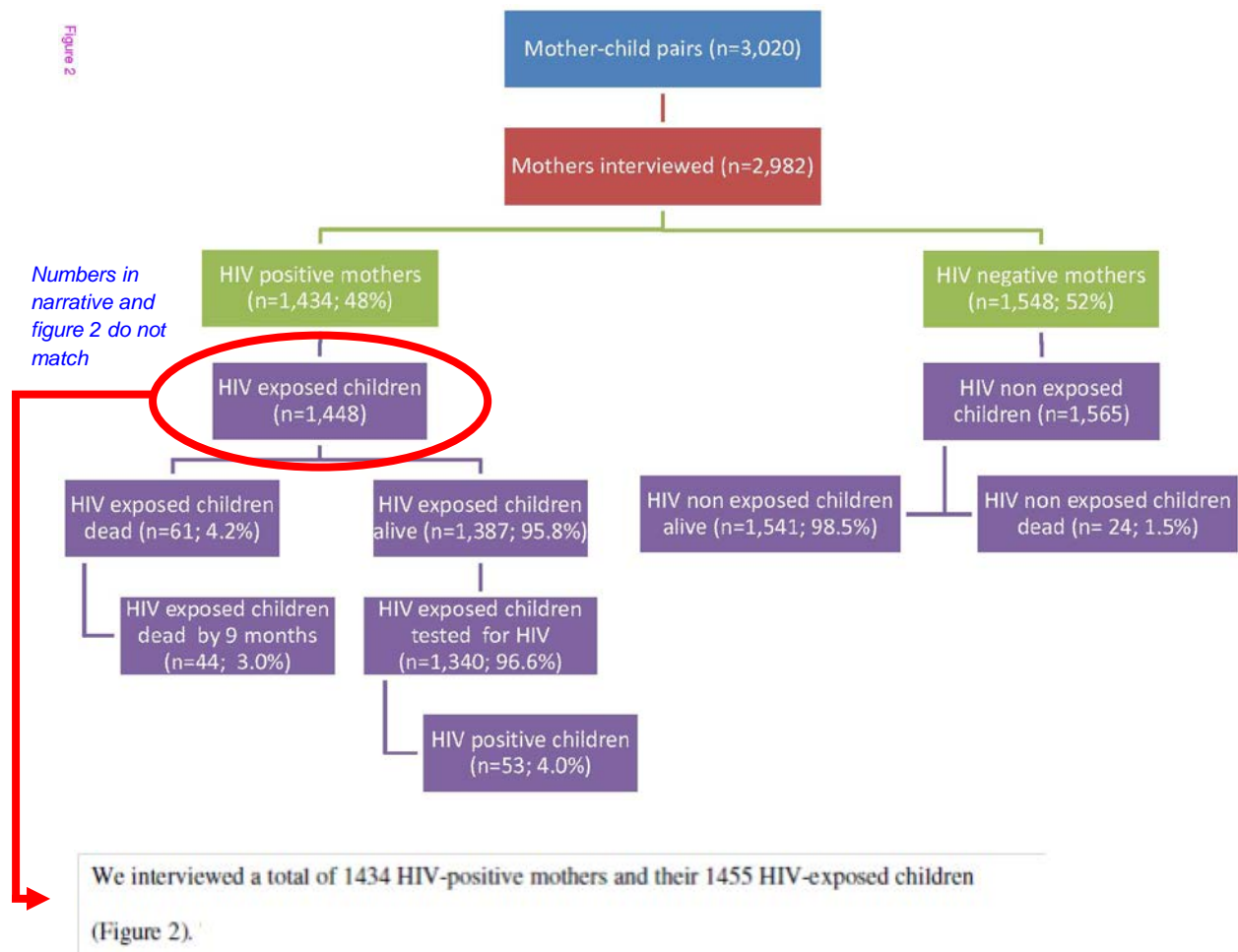
R4. In order for evaluations to be of maximum use, **reports should contain clear recommendations**.

R5. There is **a need for evaluations to be followed up systematically**. This should include clear statements of which recommendations of the evaluation

are accepted and which are contested. It should also include periodic reviews of progress in acting on the evaluation's recommendations.

- R6. Although the stocktaking exercise and this synthesis report were a useful exercise, it is **important for such exercises to be conducted on a regular basis**. It would be useful if there was a global repository for relevant HIV evaluations including syntheses of these nature in such a repository.
- R7. It would be **helpful for this synthesis report to be presented to the UNAIDS MERG** with the aim of informing any future MERG workplan, in general, particularly if any evaluation working group is established.

Annex 1: Example of apparent errors in methodological description in published study³⁵²



From the way the text of the abstract is written, it appears that these two figures should add up. They don't because two other groups of children are not mentioned – those who died after 9m = 17 and those alive but not tested for HIV = 47

Out of 1448 HIV-exposed children surveyed, 44 (3.0%) were reported dead by nine months of age. Of the 1340 children alive, 53 (4.0%) tested HIV positive.

This figure from the abstract is explained incorrectly, 1340 is the number of HIV exposed children alive and tested for HIV. The number of HIV exposed children alive is 1387.

³⁵² Ruton, H., Mugwaneza, P., Shema, N., Lyambabaje, A., Bizimana, J. de D., Tsague, L., Nyankesha, E., Wagner, C.M., Mutabazi, V., Nyemazi, J. P., Nsanzimana, S., Karema, C. and Binagwaho, A. (2012) *HIV-Free Survival among 9-24-month-old- Children Born to HIV-Positive Mothers in the Rwandan National PMTCT Programme: A Community-Based Household Survey* Journal of the International AIDS Society: 15:4 [A6](#)